

## DETERMINATION OF PLANTS COLLECTED IN COLOMBIA BY F. W. PENNELL

in 1917 (including Rusby &amp; Pennell).

- Pennell 84. *Boerhaavia erecta* L.  
115. *Rivina humilis* L.  
363. *Chamissoa altissima* (Jacq.) H. B. K.  
501. *Drymaria cordata* (L.) Willd.  
545. *Bocconia frutescens* L.  
559. *Arenaria lanuginosa* (Mx.) Rohrb.  
607. *Coriaria thymifolia* Willd.  
622. *Drymaria cordata* (L.) Willd.  
642. *Ranunculus praemorsus* DC.  
644. *Drymaria gracilis* C. & S.  
691. *Passiflora mollissima* (H. B. K.) Bailey.  
  
698. *Hedyosmum bonplandianum* H. B. K.  
  
715. *Cardamine flaccida* C. & S.  
742. *Muhlenbeckia tamnifolia* (H. B. K.) Meisn.  
802. *Hedyosmum scabrum* (R. & P.) Solms.  
811. *Clematis dioica* L.?  
1057. *Weinmannia crenata* Presl.  
1130. *Hirtella paniculata* Sw.  
1267. *Alchemilla aphanoides* Mutis.  
1267a. " " "  
1275. *Acaena elongata* L.  
1284. *Muhlenbeckia tamnifolia* (H. B. K.) Meisn.  
1322. *Arenaria lanuginosa* (Mx.) Rohrb.  
1563. *Drymaria cordata* (L.) Willd.  
1567. *Microtea debilis* Sw.  
1733. *Drymaria gracilis* C & S.  
1742. *Valeriana gracilis* Benth.  
1755. " " "  
1776. *Arenaria lanuginosa* (Mx.) Rohrb.  
1897. *Drimys winteri* Forst.  
1928. *Sisymbrium solidagineum* Tr. & Pl.  
1954. *Cardamine ovata* Benth.  
1987. *Cerastium glutinosum laxum* Tr. & Pl.  
2078. " " " "  
2084. *Alchemilla nivalis* H. B. K.  
2117. *Muhlenbeckia tamnifolia* (H. B. K.) Meisn.  
2160. *Ranunculus bonariensis* Poir.  
2170. " *flagelliformis* Sm.  
2186. " *peruvianus* Pers.  
2232. *Alchemilla nivalis* H. B. K.  
2252. *Valeriana mutisiana* (Wedd.) Hoeck.  
2253. *Berberis glauca* H. B. K.  
2267. *Acaena cylindrostachya* R. & P.  
2284. *Altermannthera mexicana* (Schl.) Hieron.  
2314. *Ranunculus flagelliformis* Sm.  
2326. " " "

- Pennell 2368. *Weinmannia tomentosa* L. f.  
2378. *Valeriana crassifolia* H. B. K.  
2398. *Thalictrum podocarpum* DC.  
2401. *Hedyosmum scabrum* (R. & P.) Solms.  
2441. *Clematis sericea* H. B. K.  
2561. *Cardamine ovata* Benth.  
2710. *Astrepbia chaerophylloides* DC.  
2719. *Arenaria lanuginosa* (Mx.) Rohrb.  
2834. *Hemistylis velutina* Wedd.  
2950. *Alchemilla aphanoides* Mutis.  
2960. *Cardamine jamesonii* Hook.  
2981. *Ranunculus praemorsus* DC.  
2963. *Drimys winteri* Forst.  
2972. *Alchemilla orbiculata* R. & P.  
2976. *Cardamine flaccida* C. & S.  
2982. *Acaena ovalifolia* R. & P.  
2984. *Colignonia ovalifolia* Heimerl.  
3016. *Alchemilla nivalis* H. B. K.  
3025. " " "  
3031. *Cerastium floccosum* Benth.  
3032. *Draba cheiranthoides* Hook. f. ~~var.~~ ?  
3034. *Cerastium glutinosum* H. B. K.  
3035. *Draba pachythrysus* Tr. & Planch.  
3049. *Valeriana plantaginea* H. B. K.  
3050. *Valeriana plantaginea* H. B. K.  
3052. *Cerastium willdenovii* H. B. K.  
3054. *Ranunculus peruvianus* Pers.  
3080. *Phrygilanthus corymbosus* (Dietr.) Eichl.  
3118. *Cardamine ovata* Benth.  
3169. *Alchemilla aphanoides* Mutis.  
3196. *Passiflora parritae* (Mast.) Bailey.  
3202. *Hedyosmum goudotianum* Solms.  
3221. *Iresine celosia* L.  
3244. *Drymaria gracilis* C. & S.  
3637. *Hirtella paniculata* Sw.  
3692. *Iresine celosia* L.  
3717. *Helianthium tenellum* (Mart.) Britton.  
3876. *Boerhaavia coccinea* Mill.  
4200. *Iresine celosia* L.  
4674. *Glinus radiatus* R. & P.  
4705. *Alternanthera polygonoides* (L.) R. Br.

November 19, 1924.

Gray

PLANTS COLLECTED IN COLOMBIA BY F. W. PENNELL, 1917-1918  
(including Rusby & Pennell).

88. *Sida acuta* Burm.  
93. *Cuscuta americana congesta*.  
139. *Turnera ulmifolia* L.  
209. " "  
298. *Paullinia fuscescens*.  
337. *Turnera ulmifolia* L.  
392. *Phyllanthus diffusus* Kl.  
400. *Psidium araca* Raddi.  
436. *Myrcia xylopoides* (H. B. K.) DC.  
476. *Melochia hirsuta* Cav.  
494. *Pavonia mollis* H. B. K.  
496. *Melochia venosa* Sw.  
581. *Phyllanthus lathyroides* H. B. K.  
766. *Bomarea setacea* (R. & P.) Herb.  
771. *Juncus bogotensis* H. B. K.  
1110. *Myrcia xylopoides* (H. B. K.) DC.  
1139. *Chamaesyce densiflora* (Kl.).  
1187. " *lasiocarpa* Kl.  
1216. *Oenothera multicaulis tarquensis* (H. B. K.) Munz &  
Johnston.  
1379. *Helicteres guazumaeifolia* H. B. K.  
1453. *Cuscuta corniculata* Engl. (Det. T. G. Yuncker)  
1481. *Myrcia lanceolata* Camb. (Leaves broader but otherwise  
typical.)  
1495. *Phyllanthus carolinensis* Walt.  
1712. *Myrcia lanceolata* Camb.  
1743. *Sclerothrix fasciculata* Presl.  
1753. *Melochia lupulina* Sw.  
1773. *Psidiopsis moritziana* Berg.  
1794. *Melochia lupulina* Sw.  
1800. *Sclerothrix fasciculata* Presl.  
1809. *Polygala gracilis* H. B. K.  
1811. *Bomarea ovata* (Cav.) Mirb.  
1819. *Bomarea multiflora* (L. f.) Mirb.  
1917. *Ugni myricoides* (H. B. K.) Berg.  
1925. *Bomarea frondosa* Mast.  
1946. *Plagiocheilus bogotensis* (H. B. K.) Wedd.  
1947. *Geranium hirtum* Willd.  
1990. *Juncoides racemosum* (Desv.) Kunze.  
2032. *Bomarea caldasii* (H. B. K.) Aschers. & Graebn.  
2049. *Juncus brunneus* Buchenau?  
2058. *Geranium multiceps* Turcz.  
2066. *Geranium cucullatum elongatum* Wedd.  
2079. *Juncoides giganteum* (Desv.) Sheldon.  
2133. *Juncus bogotensis* H. B. K.  
2134. " *microcephalus* H. B. K.  
2159. *Scutellaria racemosa* Pers.

2166. *Juncus imbricatus* LaHarpe.  
2184. *Parosela mutisii* (H. B. K.).  
2215. " " "  
2258. *Myrteola oxycoccoides* (Benth.) Berg.  
2299. *Geranium hirtum* Willd.  
2309. *Jussiaea repens* L.  
2330. *Oenothera multicaulis tarquensis* (H. B. K.) Munz &  
Johnston. (Det. Munz & Johnston)  
2337. *Phyllanthus salviaefolius* H. B. K.  
2430. *Vallea stipularis* Mutis.  
2511. *Juncus densiflorus* H. B. K.  
2512. " *microcephalus* H. B. K.  
2557. " *bufonius* L.  
2558. " *imbricatus* LaHarpe.  
2592. *Bomarea hispida* Baker.  
2660. *Cunnera pilosa* H. B. K.  
2757. *Pavonia sidifolia* H. B. K.  
2805. " *dasyptala* Turcz.  
2899. *Chamaesyce hyssopifolia* (L.).  
2915. *Cracca leptostachya* (DC.) Rusby.  
2919. *Phyllanthus diffusus* Kl.  
2935. *Crotalaria pterocaula* Desv.  
2964. *Ceranium columbianum* Knuth.  
2969. *Juncus involucratus* Steud.  
2973. *Geranium columbianum* Knuth.  
2981. " *hirtum* Willd.  
3028. *Juncoides peruvianum* (Desv.) Kuntze?  
3105. " *giganteum* (Desv.) Sheldon.  
3187. *Bomarea multiflora* (L. f.) Mirb.  
3223. *Acalypha macrostachya* Jacq.  
3234. *Bomarea krauzlinii* Baker?  
3249. *Melochia lupulina* Sw.  
3305. *Phyllanthus lathyroides* H. B. K.  
3322. *Loasa triphylla papaverifolia* (H. B. K.) Urb. & Gilg.  
3345. *Sida glutinosa* Commers.  
3382. *Phyllanthus lathyroides* H. B. K.  
3459. *Melochia hirsuta* Cav.  
3532. *Phyllanthus diffusus* Kl.  
3533. *Chamaesyce hyssopifolia* (L.).  
3609. " *densiflora* (Kl.).  
3659. *Melochia hirsuta* Cav.  
3661. *Turnera ulmifolia* L.  
3746. *Acalypha diversifolia* Jacq.  
3792. *Chamaesyce lasiocarpa* Kl.  
3986. *Melochia nodiflora* Sw.  
4060. *Parosela barbata* (Oerst.) Rydb.  
4074. *Melochia lupulina* Sw.  
4111. *Acalypha macrostachya* Jacq.  
4124. *Teucrium palustre* H. B. K.  
4180. *Acalypha diversifolia* Jacq.  
4256. *Bomarea angustipetala* (Benth.) Baker.  
4309. " *crassifolia* Baker.  
4619. *Teucrium palustre* H. B. K.

Rusby-Pennell

Bosleria

(det. C. V. Morton)

- 1367. impressa Morton
- 2417. reticulata var. venosa Morton
- 2665. reticulata Fritsch
- 2666. " var. venosa Morton
- 3400. solanoides H.B.K.
- 4382. microphylla var. serrulata Morton type

300. *Carica goudotiana* Planch. & Tr.  
 576. *Begonia holtonis* A. DC.  
 717. " *tovarensis* Kl.  
 1537. " *macra* A. DC.  
 1674. *Vismia rufescens* (Lam.) Pers.  
 1926. *Begonia urticae* L. f.  
 2440. " *ferruginea* L. f.  
 2543. " *tovarensis* Kl.  
 2653. *Begonia foliosa* H.B.K.  
 2925. *Ouratea magdalena* (Tr. & Pl.) Engl.  
 2984. *Colignonia ovalifolia* Heimerl (*det. Standley*)  
 3284. *Begonia holtonis* A. DC.

## V. COLLECTIONS OF RUSBY &amp; PENNELL IN COLOMBIA, 1917-1918

- 437 *Miconia rufescens* (Aubl.) DC.  
 ✓399 " *albicans* (Sw.) Triana  
 694 " *theaezans* (Bonpl.) DC.  
 792 " *floribunda* Naud.  
 791 " *minuta* Gleason, n.sp.  
 19818 " *floribunda* Naud.  
 813 " *aggregata* Gleason, n.sp.  
 ✓1011 " *rufescens* (Aubl.) DC.  
 831 " *cuneifolia* Gleason, n.sp.  
 1080 " *stenostachya* (Schr. & Mart.) DC.  
 1088 " *albicans* (Sw.) Triana  
 ✓1310 " *ligustrina* (Smith) Triana  
 1361 " *macrophylla* (D. Don) Triana  
 ✓1283 " *ligustrina* (Smith) Triana  
 1404 " *rufescens* (Aubl.) DC.  
 1511 " *minutiflora* (Bonpl.) DC.  
 1677 " *theaezans* (Bonpl.) DC.  
 ✓1971 " sp.  
 2094 " *ligustrina* (Smith) Triana  
 2121 " *cataractae* Triana  
 2172 " *reclinata* (Bonpl.) Naud.  
 ✓2211 " *ligustrina* (Smith) Triana  
 2418 " *stipularis* Naud.  
 ✓2739 " *spicellata* Bonpl.  
 ✓2851 " *albicans* (Sw.) Triana  
 ✓2852 " *acinodendrum* (L.) Triana  
 2894 " *stenostachya* (Schr. & Mart.) DC.  
 ✓3078 " *salicifolia* (Bonpl.) Naud.  
 ✓3152 " sp.  
 3441 " *barbinervis* (Benth.) Triana  
 ✓3525 " *albicans* (Sw.) Triana  
 4392 " sp.

Pennell 3487. *Bleparodon minimum* Woodson (type)  
 Pennell. 1587. *Mascagnia volubilis* (Sims) Ndz.

" 3560. *Hiraea ternifolia granatensis* vulgaria Ndz. Det. C. J. Standley  
 " 4033. *Mascagnia dumetorum* Morton (type)

Pennell-Colombia

3336. *Dioscorea flaccida* Knuth (type) Det. R. Knuth.

Rusby & Pennell - 1917

775. *X. columbiana* Malme (but not typical)  
1409. *X. lacerata* Pohl  
2202. *X. acutifolia* (Heimerl) Malme

(Det. Malme)

Xyris

RUSBY & PENNELL -- COLOMBIA

391. *Iresine argentata* (Mart.) D. Dietr.  
1092. " " " "  
1659. *Pfaffia iresinoides* (H.B.K.) Spreng.  
1828. " *Dunaliana* (Moq.) Standl.  
1886. *Alternanthera elongata* (Willd.) Standl.  
1957. " *lanceolata* (Benth.) Standl.  
2284. " *porrigens* (Jacq.) Kuntze?  
3879. *Amaranthus dubius* Mart.  
4668. " " "  
4705. *Alternanthera polygovoidea* (L.) R. Br.

(Det. Standley)

Colombia, Rusby and Pennell, 1917--1918

- 480-A, 499-A *Tibouchina ciliaris* (Vent.) Cogn.  
500-A *Aciotis paludosa* (Mart.) Triana  
523-A *Tibouchina longifolia* (Vahl) Baill.  
568, 569 *Monochaetum Bonplandii* (Kunth) Naud.  
684 *Monochaetum meridense* Naud.  
723 *Tibouchina lepidota* (Bonpl.) Baill.  
736 *Monochaetum meridense* Naud.  
✓804 " *villosum* Gleason, n. sp.  
820 949 " *meridense* Naud.  
✓943 " *Bonplandii* (Kunth) Naud.  
968 " "  
981 " "  
1051 *Tibouchina gracilis* (Bonpl.) Cogn.  
✓1123 *Clidemia capitellata* (Bonpl.) D. Don  
1423 *Poteranthera minor* Gleason, n. sp.  
1467 *Siphonthera alsinoides* Gleason, n. sp.  
1510 *Olidemia cymosa* Gleason, n. sp.  
18 49 *Tibouchina ciliaris* (Vent.) Cogn.  
✓2449 *Monochaetum coronatum* Gleason, n. sp.  
3332 *Tibouchina ciliaris* (Vent.) Cogn.  
✓3466 *Olidemia capitellata* (Bonpl.) D. Don  
✓3470 *Meriania barbinervis* Naud.  
4447 *Tococa platyphylla* Benth.  
4466 *Blakea fasciculata* Gleason, n. sp.  
4546 *Triolena hirsuta* Triana

- Pennell
- 1423. *Dichromena parvula* B. & K.
  - 1501. " " " "
  - 3216. " *polystachya* Purrill
  - ✓ 12499. *Rhaphithamnus cyanocarpus* (Bert.) Miers (det. Moldenke)
  - ✓ 14440. *Cynanchum eurystephanum* Malme (type)

*F. W. Pennell, Colombia*

- Syngenesia*
- 2019. *S. abirtimus* Willd.
  - 2047. *S. chinogenetum* Wedd. forma *macrocephalus* Hieron
  - 2051. *S. subruncinatus* (Wedd.) Greenman
  - 2055. *S. stuebelii* Hieron
  - 2971. *S. patens* (HBK.) DC.
  - 2985. *S. sylvicolus* Greenman, sp. nov.
  - 3002. *S. weddellianus* Hieron
  - 3033. *S. latiflorus* Wedd.
  - 3076. *S. andicola* Turez

det. J. M. G.

*Hydrocotyle.*

Det. Mildred E. Mathias, 1933.

Pennell-Colombia.

- 2799. *H. pusilla* A. Rich
- 3204. *H.* "
- 2624. *H. tenerrima* Rose (type)
- ✓ 6592. *H. Humboldtii* A. Rich
- ✓ 9202. *H.* "
- 2945. *H. hederacea* Mathias

Pennell (Rusby & Pennell). Colombia

- 1950. *Cestrum petiolare* H.B.K. (Det. Morton)
- 2349. " *mutisii* Willd. " "
- 3884. *Rynchospora corymbosa* (L.) Britton
- 4153. *Tradescantia elongata* G.F.W.Mey.
- 4214. *Hybanthus prunifolius* (H.B.K.) Schultze
- 3522. *Cassaria silvestris* Sw. (Det. Sleumer)

5J

Current South American Collections identified by H. Sleumer.

Reported by U. S. National Museum, March 1936.

Rusby & Pennell-Pennell

- ✓ 748. *Vaccinium meridionale* Sw.
- ✓ 749. " "
- 840. " *floribundum ramosissimum* (Dunal) Sleumer
- ✓ 2060. " " "
- 2598. " " H.B.K.
- ✓ 4262. " " *marginatum* (Dunal) Sleumer and V. *corymbodendron* Dunal

Pennell, Colombia 1917.

~~Julocroton~~ hond.

171. *Julocroton hondensis* (Karst.) Muell. Arg.  
511. *Siparuna sessiliflora* (H. B. K.) DC. (Det. A. C. Smith)  
970. *Inga corucans* Willd.? 5  
pm, September 1933.  
1420. *Eriosema simplicifolium* (~~author?~~) G. Don  
1850. *Mucuna sloanei* Fawc. & Rendle (correction)  
3936. *Pithecolobium lanceolatum* (H. & B.) Benth.  
4159. *Inga vera* Willd.  
4792. *Priva lappulacea* (L.) Pers.

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2538. *Cyperus aschenbornianus* Boeck. (correction)  
3032. *Draba pennell-hazenii* O. E. Schulz (det. O. E. Schulz)  
3165. *Juanulloa speciosa* (Miers) Dun.  
3295. *Costus sanguinens* Donn. Sm. (det. Rowlee in N. Y. B. G.)  
3304. " *nutans* K. Sch. " " " "  
3437. *Albizia carbonaria* Britton (det. Britton)  
3633. *Scleria latilacunosa* Kükenth. (det. Core)  
4203. *Cyperus chalananthus* Presl (correction)  
4009. *Chamaecrista schlimii* (Benth.) B. & R.  
4653. *Cyperus chalananthus* Presl (correction)  
4698. *Brownea stenantha* Britton & Killip (type)

Rusby & Pennell, Colombia

- 905, 2665. *B. reticulata* Fritsch  
1367. *B. leucostoma* (Hook.) Hanst.  
2666, 2417. *B. nitens* Fritsch  
3400. *B. acutifolia* Benth.  
4382. *B. microphylla* Fritsch

Rusby & Pennell, Colombia.

Malpighiaceae determined by C. V. Morton; others by E. P. Killip  
unless otherwise noted.

U. S. National Museum, December 1934.

- 134, 3617, 2813. *Galactia velutina* Benth.  
222. *Bunchosia glauca* H.B.K.  
319. *Banisteriopsis cornifolia* (H.B.K.) C. B. Rob.  
338. *Tetrapteris huilensis* Morton (type)  
640, 834, 999. *Clusia multiflora* H.B.K. (Det. A. C. Smith)  
891. *Aphelandra acanthus* Nees (det. Leonard)  
1136. *Banisteria suberosa candolleana* (Juss.) Morton  
1141. " *purpurea puberula* (Ndz.) Morton  
1390. *Mandevilla subsagittata* (R. & P.) Woods. (Det. Woodson)  
1403. *Vismia lauriformis* (Lam.) Choisy (Det. A. C. Smith)  
1420. *Eriosema simplicifolium* (H.B.K.) Walp.  
1512. *Tetrapteris calcophylla* Juss.  
1642. *Phaseolus linearis* H.B.K.  
1840. *Galactia velutina* Benth.  
1879. *Cologania ovalifolia* H.B.K.  
2470. " " "  
2743. *Galactia velutina* Benth. (form)  
2820, 2838. *Banisteriopsis cornifolia* (H.B.K.) C. B. Rob.  
2829. *Dioclea paniculata* Killip  
2874. *Heliconia robusta* Pax (Det. Griggs)  
2929. *Banisteriopsis cornifolia* (H.B.K.) C. B. Rob.  
3243. *Calopogonium galactioides* (H.B.K.) Benth.  
3427. *Oryctanthus ruficaulis* (P. & E.) Eichl. (Det. A. C. Smith)  
3438. *Mesechites brevipes* (Benth.) Muell. Arg. (Det. Woodson)  
3513. *Galactia velutina* Benth.  
3610. *Machaerium tolimense* Killip (type)  
3962. *Sesbania exasperata* H.B.K.  
3966. *Triplaris pyramidalis* Jacq.  
3971. *Bunchosia rhombifolia* Turcz.  
3979. *Machaerium attenuatum* Killip (type)  
4080. *Dioclea guianensis* Benth.  
4161. *Rhynchosia calycosa* Hemsl.  
4242. *Chaetocalyx retusa* Blake (not C. latisiliqua)  
4255. *Carex conferto-spicata* Boeckl. (Det. Mackenzie)  
4373. *Clusia multiflora* H.B.K. (Det. A. C. Smith)

Rusby & Pennell, Colombia

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Rusby & Pennell, Colombia.

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891. *Aphelandra acanthus* Nees (Det. Leonard)  
1136. *Banisteria suberosa candolleana* (Juss.) Morton  
1141. " *purpurea puberula* (Ndz.) Morton  
1390. *Mandevilla subsagittata* (R. & P.) Woods. (Det. Woodson)  
1403. *Vismia lauriformis* (Lam.) Choisy (Det. A. C. Smith)  
1420. *Eriosema simplicifolium* (H.B.K.) Walp.  
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1840. *Galactia velutina* Benth.  
1879. *Cologania ovalifolia* H.B.K.  
2470. " " "  
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2820, 2838. *Banisteriopsis cornifolia* (H.B.K.) C. B. Rob.  
2829. *Dioclea paniculata* Killip  
2874. *Heliconia robusta* Pax (Det. Griggs)  
2929. *Banisteriopsis cornifolia* (H.B.K.) C. B. Rob.  
3243. *Calopogonium galactioides* (H.B.K.) Benth.  
3427. *Oryctanthus ruficaulis* (P. & E.) Eichl. (Det. A. C. Smith)  
3438. *Mesechites brevipes* (Benth.) Muell. Arg. (Det. Woodson)  
3513. *Galactia velutina* Benth.  
3610. *Machaerium tolimense* Killip (type)  
3962. *Sesbania exasperata* H.B.K.  
3966. *Triplaris pyramidalis* Jacq.  
3971. *Bunchosia rhombifolia* Turcz.  
3979. *Machaerium attenuatum* Killip (type)  
4080. *Dioclea guianensis* Benth.  
4161. *Rhynchosia calycosa* Hemsl.  
4242. *Chaetocalyx retusa* Blake (not *C. latisiliqua*)  
4255. *Carex conferto-soicata* Boeckl. (Det. Mackenzie)  
4373. *Clusia multiflora* H.B.K. (Det. A. C. Smitn)

(Det. Miss C. K. Allen, Missouri Botanical Garden).

Rusby & Pennell.

2434. *Hamelia* brevicornis (H. B. K.) Don

2438. *H. major* Wedd.

3001. *H. dasyantha* Gilg

4268. *H. foliosa* Gilg

Determination of current South American collections

Rusby & Pennell.

627. *Disterigma elassanthum* Blake. Type.  
2411. *Loasa campanuliflora* Tr. & Planch.

MALPIGHIACEAE. DET. C. V. MORTON.

Rusby & Pennell 103. *Mascagnia violacea* (Tr. & Pl.) Ndz. (ex char.)

" " " 338. *Tetrapterys huilensis* Morton (type)

Pennell

1202. *H. suaveolens* Poit.

3585. *H. " "*

3891. *H. pectinata* (L.) Poit.

*Heptilia*  
*det. S. H. Bailey*

-Rusby & Pennell 4457 *Miconia desmantha* Benth.

Rusby & Pennell 4464 Unidentifiable, possibly *Leandra*

" " 817 " " "

Rusby & Pennell, and Pennell 1917

637. *R. glaucus* Benth.

708. *R. porphyromallus* Focke

884. Cf. *R. guayanensis* Focke

912. *R. guyanensis* (aff.) Focke

1843. *R. boliviensis* Focke

1969. *R. glaucus* Benth.

3129. *R. glaucus* Benth.

3326. *R. urticaefolius* Poir.

TT

Rusby & Pennell & Pennell, 1917

586. *O. scandens* H.B.K.

764. *O. lotoides* H.B.K.

1593. *O. barrelieri* L.

2571. *O. pubescens* H.B.K.

2939. *O. lotoides* H.B.K.

3096. *O. tolimensis* R. Knuth, TYPE

3113. *O. scandens* H.B.K.

3312. *O. hedysaroides* H.B.K.

Rec'd. June, 1932

Dit. by J. J. Smith & L. S. Herder, note 4.

Colombia:

Rusby & Pennell (or Pennell):

16. *Cissus erosa* L.C.Rich.
40. " " "
59. *Chelonanthus acutangulus* (R. & P.) Gilg
178. *Carearia mariquitensis* HBK. (comp. type at P.)
224. *Ficus elliptica* HBK. (comp. type at P.)
266. *Trichilia cuneata* Radlk. (det. Harms)
275. *Trichilia aff. peruviana* C.DC. (det. Harms)
280. *Aristolochia ringens* Vahl
288. *Gouania tomentosa* Jacq.
292. *Sissis sicyoides* L.
299. " "
323. *Phthirusa theobromae* (Willd.) Eichl.
326. *Waltheria americana* L.
371. *Ficus elliptica* HBK.
440. *Chelonanthus acutangulus* (R. & P.) Gilg.
445. *Melochia mollis* (HBK.) Tr. & Pl. (comp. type at P.)
542. *Gaultheria erecta* Vent.
564. *Gaultheria anastomosans* HBK.
655. *Smilax Ruiziana* Kunth
672. *Styrax macrocalyx* Perk.
678. *Symbolanthus latifolius* Gilg
720. *Siparuna macrophylla* (HBK.) A.DC.
748. *Vaccinium caracasanum* HBK.
749. " "
753. *Rhamnus Goudotianus* Tr. & Pl.
802. *Hedyosmum Goudotiamum* Solms, not H. scabrum
806. *Nectandra globosa* (Aubl.) Mez
821. *Smilax cumanensis* H. & B.
828. *Gaultheria anastomosans* HBK.
840. *Vaccinium caracasanum* HBK.
841. " "
885. *Cissus rhombifolia* Vahl
922. *Siparuna macrophylla* (HBK.) A.DC. (comp. type at P.)
961. *Clethra repanda* Turcz.
967. *Gaultheria anastomosans* HBK.
984. *Sisyrinchium iridifolium* HBK. (comp. type at P.)
996. *Gaultheria erecta* Vent. (comp. type at B.)
1068. *Burmannia capitata* (Michx.) Mart.
1149. *Bursera tomentosa* (Jacq.) Tr. & Pl.
1258. *Gaylussacia buxifolia* HBK.
1304. *Orthrosanthus chimboracensis* (HBK.) Baker
1311. *Pernettya myrsinoides* (HBK.) Zucc.
1312. " "
1313. *Gaultheria cordifolia* HBK.
1314. *Gaultheria anastomosans* HBK.
1315. " "
1316. " "
- 1316A. " "
1324. *Sisyrinchium convolutum* Nocea
- 1348A. *Sisyrinchium alatum* Hook.
1383. *Cissampelos pareira* L. v *typica* Diels
1416. *Burmannia flava* Mart.
1418. *Chelonanthus bifidus* (HBK.) Gilg (comp. type at B.)

Rusby & Pennell (cont.):

1546. *Chelonanthus bifidus* (HBK.) Gilg  
 1656. *Disciphania appendiculata* Diels (comp. type coll. at K.)  
 1684. *Chelonanthus uliginosus* (Griseb.) Gilg  
 1726. *Cipura paludosa* Aubl.  
 1745. *Cleome pilosa* Benth.  
 1866. *Cissampelos fasciculata* Benth.  
 1885. *Boussingaultia brachystachys* (Moq.) (comp. type at K.)  
 1935. *Gaultheria cordifolia* HBK.  
 2023. *Clethra fimbriata* HBK. (comp. type at P.)  
 2025. *Gaylussacia buxifolia* HBK. (comp. type at P.)  
 2030. *Sisyrinchium bogotense* HBK.  
 2046. *Ternstroemia meridionalis* Mutis  
 2059, part. *Pernettya myrsinoides* (HBK.) Zucc.  
 2061. *Gaultheria anastomosans* HBK. (comp. type at P.)  
 2062. "  
 2082. *Sisyrinchium pusillum* HBK.  
 2091. *Gaultheria purpurascens* HBK.  
 2113. *Sisyrinchium pusillum* HBK. (comp. type at P.)  
 2162. *Sisyrinchium bogotense* HBK. (comp. type at P.)  
 2195. *Macrocarpaea polyantha* Gilg (comp. type coll. at K.)  
 2208. *Ternstroemia meridionalis* Mutis  
 2218. *Gaultheria purpurascens* HBK. (comp. type at P.)  
 2372. *Gaultheria anastomosans* HBK.  
 2431. *Dendrophthora squamigera* (Benth.) B. & H. (comp. type at K.)  
 2432. *Sisyrinchium bogotense* HBK.  
 2453. *Dendrophthora clavata* (Benth.) Urb. (comp. type at K.)  
 2487. *Disterigma elaterrroides* (HBK.) Nied.  
 2490. *Symbolanthus tricolor* Gilg  
 2598. *Vaccinium polystachyum* Benth.  
 2742. *Buettneria mollis* HBK.  
 2782A. "  
 2782. *Cipura paludosa* Aubl.  
 2794. "  
 2853. *Chelonanthus bifidus* (HBK.) Gilg  
 2861. *Chelonanthus uliginosus* (Griseb.) Gilg  
 2924. *Cipura paludosa* Aubl.  
 2937. *Vaccinium polystachyum* Benth.  
 2946. *Sisyrinchium convolutum* Nocca  
 2955. *Vaccinium polystachyum* Benth.  
 2983. *Pernettya myrsinoides* (HBK.) Zucc. (comp. type at P.)  
 3009. *Disterigma empetrifolium* (HBK.) Nied.  
 3138. *Gaultheria cordifolia* HBK. (comp. type at B.)  
 3140. *Pernettya Pentlandii* DC. (comp. type at C.)  
 3146. *Siparuna buddleifolia* (Benth.) A.DC. (comp. type at K.)  
 3202. *Hedyosmum Bonplandianum* HBK. (comp. type at P.), not  
 H. Goudotianum  
 3324. *Cissampelos fasciculata* Benth.  
 3395. *Cleome puberula* Tr. & Pl. (comp. type coll. at K.)  
 3474. *Waltheria americana* L.  
 3495. *Curtia tenuifolia* (Aubl.) Knobl  
 3546. *Erythraea quitensis* HBK. (comp. type at P.)  
 3622. *Cipura paludosa* Aubl.  
 3623. *Aristolochia pilosa* HBK. (comp. type at P.) (!O.C.Schmidt)  
 3630. *Nectandra caucana* Mez (comp. type at K.)  
 3631. *Xylosma elegans* (Tul.) Tr. & Pl. (comp. type at P.)

Rusby & Pennell (cont.):

- 3635. *Cecropia Goudotiana* Trec. (comp. type at P.)
- 3641. *Cipura paludosa* Aubl.
- 3671. " "
- 3722. *Souroubea guianensis* Aubl.
- 3781. *Ficus glabrata* HBK.
- 3830. *Triplaris caracasana* Cham.
- 3832. *Herrania albiflora* Goud.
- 3915. *Casearia spinosa* Willd.
- 3942. *Bombax mompxense* HBK. (comp. type at P.)
- 3965. *Triplaris Cumingiana* Fisch. & Mey.
- 3976. *Lafoensia punicifolia* DC.
- 4090. *Lecythis elliptica* HBK.
- 4116. *Helicteres guazumaeifolia* HBK.
- 4123. *Struthanthus orbicularis* (HBK.) Blume
- 4142. " "
- 4208. *Herrania albiflora* Goud.
- 4250. *Pernettya myrsinoides* (HBK.) Zucc.
- 4253. *Sisyrinchium pusillum* HBK.
- 4262. *Vaccinium densiflorum* Benth.
- 4267. *Disterigma empetrifolium* (HBK.) Nied.
- 4280. *Gaylussacia buxifolia* HBK.
- 4306. *Gaultheria cordifolia* HBK.
- 4354. *Cavendishia sophoclesioides* A.C.Smith (type)
- 4371. *Ternstroemia meridionalis* Mutis (comp. type at P.)
- 4431. *Disterigma cuspidatum* (Planch.) Nied.
- 4548. *Gustavia pleurocarpa* Pittier (comp. type coll.) (new to S.A.)
- 4575. *Clusia Cooperi* Standl. (comp. type coll.) (new to S.A.)
- 4576. " " "
- 4585. *Aristolochia pilosa* HBK. (!O.C.Schmidt)
- 4593. *Ficus glabrata* HBK. (comp. type at P.)
- 4703. *Struthanthus orbicularis* (HBK.) Blume (comp. type at P.)
- 4747. *Aristolochia loriflora* Masters (det. O.C.Schmidt)

4437. *Miconia desmantha* Benth. (det. Gleason)

Colombia.

Rusby & Pennell:

- 377. *Phthirusa tortuosa* A.C.Smith (type)
- 583. *Siparuna huilensis* A.C.Smith
- 837. *Phthirusa pyrifolia* (HBK.) Eichl?
- 869. *Siparuna huilensis* A.C.Smith (type)
- 870. " " "
- 1662. *Aegiphila integrifolia* (Jacq.) Jacks. (det. Moldenke)
- 2060. *Vaccinium floribundum* HBK.
- 2664. *Themistoclesia rostrata* A.C.Smith (type)
- 3199. *Struthanthus leptostachyus* (HBK.) G. Don. vel valde aff.
- 3519. *Callicarpa acuminata* HBK. (det. Moldenke)
- 3629. " " "
- 3902. *Psittacanthus Warmingii* Eichl.
- 4288. *Vaccinium Pennellii* A.C.Smith
- 4316. " " "
- 4341. *Gaultheria Pennellii* A.C.Smith (type)
- 4354. *Cavendishia sophoclesioides* A.C.Smith (type)

MISCELLANEOUS

- Gleason 785. *Ficus gleasonii* Standl.  
 841. " *olmediaefolia* Standl.  
 De la Cruz 1167. *Trema micrantha* (L.) Blume  
 1558. *Ficus gleasonii* Standl. }  
 2359. " " "  
 2396. " " "  
 2639. " " "  
 2870. " " "  
 4496. *Solanum surinamense* Steud  
 Broadway (Venezuela) 736. *Coleosanthus diffusus* (Vahl) Ktze. (Det. Blake)  
 Broadway 848. *Parahancornia amapa* (Hub.) Ducke  
 Pachano 47. *Hydrocotyle bonplandii* Rich.  
 81. *Geranium mexicanum* H.B.K.  
 94. *Tagetes crassiceps* Blake (Det. Blake)  
 105. *Ninthostachys mollis* (H.B.K.) Epl. (Det. Epling)  
 189. *Neonelsonia acuminata* (Benth.) C. & R.

Pennell (Colombia)

- Ribes andivola* Janez. (Compared with type at Geneva)  
 2431. *Dendrophthora squamigera* Benth. (Compared with type at Kew)  
 3446. *Vismia dealbata* H.B.K. (Compared with type at Paris)

Rusby (Bolivia)

- Oxalis*  
 746. *O. pseudo-violacea* R. Knuth, TYPE  
 755. *O. medicaginea* H.B.K.  
 758. *O. buchtienii* (Rusby) R. Knuth

Rusby (Bolivia)

- Rubus*  
 468. *R. boliviensis* Focke (rather than *R. sellowii*)  
 474. Aff. *R. guayanensis* Focke (not *R. bogotensis*)  
 476. *R. buchtienii* Focke

- Burmeistera*  
 Rusby & Pennell 778 sp.nov. unnamed. Distr. as *Centropagon* sp. ✓  
 997 sp.nov. unnamed. Distr. as *Siphocampylus* sp.

Rusby (Bolivia)

960. *Nephromeria axillaris acutifoliola* (Kuntze) Schindl.  
 961. *Desmodium affine* Schlecht.  
 964. *Meibomia limensis* (Hook.) Kuntze  
 976. " *scorpiurus* (Sw.) Kuntze

Rusby 637 *sparsipilus* Wim. Distr. as (?) *dubius* Zahlbr. *Siphocampylus*

Rusby & Pennell 947 *venosus* Gl. var. *neivanus* Wim. *Siphocampylus*

Rusby

2040. *Weinmannia trollii* O. C. Schmidt

Reported by N.Y. Bot. Gard. June 1938.

Det. Suessenguth:

- Rusby & Pennell 97. *Iresine elatior* Rich.  
 160. *Alternanthera halimifolia* Standley var.  
 3827. *Chamissoa altissima* HBK.  
 3858. *Alternanthera polygonoides* R. Br. sens. lat.  
 4050. *Iresine elatior* Rich.

- Mulford Biol. Expl.
- Aristolochia*
- 2057. *A. peltata* O.C. Schmidt
  - 1162. *A. pilosa* H. B. K.
  - 1776. " "
  - 1857. " "
  - 145. *" boliviensis* Kuntze
  - 601. " "
  - 502. " "
  - 1164. *" odoratissima* L.

Eupatorium and eupatorioid Compositae collected in Bolivia by the  
Mulford Expedition. By N. N. Ruaby - 1921.

- Recd. at Gray Herb. about June 1st, 1922. Determined by B. L. Robinson.
- 68 *Ageratum conyzoides* L.  
96 *Eupatorium scopulorum* Wedd.  
105 *Ophryosporus piqueroides* (DC.) Benth. & Hook. f.  
120 *Stevia*  
153 *Ophryosporus Cumingii* (Sch.-Bip.) Benth. & Hook. f.  
168 *Stevia*  
185 *Eupatorium Sternbergianum* DC.  
267 *Stevia*  
304 *Vernonia*  
376 *Eupatorium macrophyllum* L.  
424 *Ophryosporus piqueroides* (DC.) Benth. & Hook. f.  
626 *Mikania Haenkeana* DC.  
677 *Ageratum conyzoides* L.  
689 *Eupatorium laevigatum* Lam.  
918 *Ageratum conyzoides* L.  
919 *Ageratum conyzoides* L.  
1317 *Eupatorium kleinoides* HBK.  
1350 " *ivaefolium* L.  
1353 *Mikania officinalis* Mart.  
1426 *Eupatorium ivaefolium* L.  
1485 " *hecatanthum* (DC.) Bak.  
1685 " *ivaefolium* L.  
1713 " *kleinoides* HBK. (n.d.)  
1983 *Mikania psilostachya* DC.  
2145 " *rubella* Lingelsheim.  
2146 *Ageratum conyzoides* L.  
2147 *Eupatorium morifolium* HBK. (n.d.)

## Flora of Arizona

Interesting localities. Rusby's collection of 1883.

- 506 *Ranunculus cordiophyllus*, Hook, Harts Ranch  
 513 *Arabis perfoliata*, Lam Prescott.  
 514 *Streptanthus cordatus*, Nutt. Yavapai.  
 515 " *Graba asprella*, E. L. G. n. sp. Lynx Creek.  
 516 " *Carolina*, var *micrantha*, Near Prescott.  
 522 *Wislizenia refracta*, Eng. Holbrook.  
 524 *Krameria parvifolia*, Benth., banks of Col-  
 orado at mouth of Diamond Creek.  
 525 *Polygala Rusbyi*, E. L. G. n. sp. Banghart's  
 Ranch, and Yavapai.  
 526 " *scoparia*, HB K. Oak Creek.  
 528 *Silene acaulis*, L. summit of Mt. Humphreys  
 530 } *Arenaria scabrella*, E. L. G. n. sp. "  
 531 } "  
 532 " *Rusbyi* " " throughout the  
 Juniper forests of Yavapai Co.  
 537 *Sphaeralcea Pendleri*, Gray Prescott.  
 539 *Abutilon Parvulum*, Banghart Ranch  
 540 *Linnia Tex.-Mexicana*, throughout  
 San Francisco Forest.  
 542 *Larrea Mex.*, Moni, a very small-leaved  
 and very glandular form on  
 bank of Colorado Riv. at mouth of  
 Diamond Creek.  
 543 *Geranium caespitosum*, James Flaggstaff  
 545 *Oxalis decaphylla*<sup>HBK.</sup> Mt. Humphreys  
 549 *Zizyphus obtusifolius*, Gray, Near Peach Springs  
 553 *Lupinus concinnum* Agardh Lynx Creek.  
 557 *Trifolium Kingii*, Wats. Bill Williams Mts.  
 561 *Hosackia Wrightii*, Gray, Flaggstaff.  
 564 *Dalea Wrightii*, Gray Beaver Head  
 567 *Robinia Neo-Mexicana*, Gray at Hells canon

- a var with nearly white flowers and cordate leaflets.
- 5-68 *Astragalus Pattersonii*, Eng, Casino
- 5-72 " *Baudegei*, Baughart Ranch
- 5-73 " *Rushii*, E.L.G. n.sp. Mt. Agassiz.
- 5-75 " *Mitchamia*, Not one specimen at Williams
- ~~5-84 *Prunus demissa* (?) specimen sent  
Leavitt.~~
- 5-89 *Senni triflora*, Bush very abundant on Bill Williams Mts.
- 5-90 " *Rossii*, Sering, Mt. Humphreys
- 5-91 *Potentilla subviscosa*, E.L.G. Blagstoff.
- 5-96 *Ivesia depauperata*, Eng, Head of Oak Creek
- 5-99 *Ribes Rushii*, E.L.G. n.sp. San Francisco Mts.  
& Bill Williams Mts.
- 601 *Sedum rhodanthemum*, Eng Mt. Humphreys
- 602 *Lythrum alatum*, Bush var. linearifolium Eng, Peach Springs.
- 604 *Cenothera chamaenerioides*, Eng, Clifton & Lynx Creek
- 612 *Mertzelia Wrightii*, Eng Beaver Head
- 613 " *m. sp.* multijuga, Near Prescott
- 614 " *n. sp.* Bellmont
- 617 *Mammillaria vivipara*, Haw  
*formia sphacelacantha* Eng  
Blagstoff.
- 620 *Cerens straminens* Eng Beaver Head
- 621 *Opuntia Bigelowii* " Near Peach Springs
- 622 *Opuntia acanthocarpa* Eng & B.J. Beach Springs & adjacent country.
- 633 " *Whipplei* Eng & B.J. Navajo Springs & Prescott.
- 624 " *chlorotica* sparingly throughout southern part of Yavapai Co.
- (Not collected) *Opuntia basilaris*, Hackberry,
- 638 *Lonicera microserata*, Banks, Mt. Humphreys
- 640 *Galium Wrightii*, Eng, about Prescott
- 642 " *microphyllum* " Baughart Ranch
- 643 *Valeriana dioica*, L, Bill Williams Mts.
- 647 *Hymenothrix Wislizenii*, Eng, Peach Springs.
- 65-6 *Tetradymia glabrata*, Casino
- 651 *Bigelovia Rushii*, E.L.G. n.sp. Holbrook
- 651½ " *spectabilis*, Prescott.
- 653 *Helianthus Maximilianae*, Schrad. South of Blagstoff.
- 654 *Lygodesmia spinosa*, Blagstoff.
- 657 *Riddellia Tajetina*, Johnson's Canon.
- 658 *Taraxacum dens-leonis* Prescott
- 659 *Dicoria Baudegei*, Holbrook
- 660 *Townsendia Arizonaica*, Holbrook & Ash Fork
- 661 *Coccopsis Drummondii*, Oak Creek
- 663 *Malacothrix Rushii*, E.L.G. n.sp. Baug-  
hart Ranch
- 665 *Senecio arvensis*, L, var crispa, Rush.,  
Lynx Creek
- 669 " *esplazonicus*, E.L.G. n.sp.  
Lynx Creek

670 *Senecio Franciscanus*, E. L. G. m. sp.

Flagstaff.

- 671 " *Actinella*, E. L. G. m. sp. Flagstaff.
- 672 " *Neo-Mexicana*, Gray, Oak Creek
- 673 *Actinella Bijelovii*, Gray Flagstaff &c
- 674 " *scaposa* Nutt. Yampa
- 675 " *bimini* Oak Creek & Beaver Head
- 676 *Eucelia frutescens*, Hockberry
- 676½ " *Rushyzia*, E. L. G. m. sp. Oak Creek
- 677 *Baechais Wrightii*, Gray Prescott
- 678 " *brachyphylla*, Yavapai Co.
- 680 *Transeria Hookeriana*, Near Casino.
- 681 *Lactucea pulchella* de. Mt Agassiz.
- 682 *Oxytaenia acerosa*, Halbrook
- 683 *Sol. multidiata*, var *scopularum* Gray  
Mt. Humphreys
- 684 " *mama*, Near Flagstaff.
- 685 *Aster Kanaceifolius*, Ash Fork
- 686 " *canescens*, Thoroughout
- 687 " *Paniciflorus*, Albuquerque, New
- 688 " *Ericaefolius* Thoroughout
- 689 " *folicornis*, var Burke, Hart's Ranch
- 690 " *spinosus*, Albuquerque, New
- 691 *Eriogon subdecurrens*, Mt Agassiz
- 691½ " *Flagellans*, Bill Williams river
- 692 *Hymenopappus lateris*, D. Francisco Forest
- 693 " *temifolius* .. .
- 694 *Perezia Wrightii*, common
- 697 *Gnaphalium strictum* Mt Agassiz
- 700 *Artemisia Bijelovii*, Gemison &c

- 702 *Dysosmia Cooperi*, Gray, Hackberry.  
703 *Lepidium sativum* Albuquerque, NM  
704 " *columnaris*, Santa Fe, "  
705- *Balduina oppositifolia*, L & G, Albuquerque "  
706 *Peltaria Hispida*, Cubero N. M.  
707 *Cnicus modulatus*, Baugharts Ranch  
708 " *Arizonaicus* Oak Creek  
709 " *ochrocentrus*, Near Peach Springs  
710 " *Drummondia*<sup>var?</sup> Harts Ranch  
713 *Lobelia splendens*, Oak Creek  
714 *Campanula Schenckiana*, Clarks Valley  
718 *Mandevilla scoparia*, Peach Springs  
722 *Acerates amiculata*, Prescott &c  
723 *Gentiana Thunbergii*, Flaggstaff.  
724 *Erythraea calycosa*, var. *Arizonaica*  
Peach Springs,  
725- *Frasera paniculata*, Oak ~~and~~  
728 *Gilia linearis*, very stout and  
branching at Munn's Ranch  
*Gilia Rusbyi*, throughout forest region,  
and like all the other *Gilia* is var-  
iable as to length of corolla  
tube. Petals very variable.  
731 " *divaricata*, ~~and~~ Park.  
733 " *rigida*, near var *acerosa*, Halbrook  
733½ " *Humilissima*, with a hard woody  
perennial root. Halbrook.  
734 " *temporea*, Bent. Lynx Creek.  
735- *Phlox longistylis* var. *bimaculata* Ash & Fish  
736 " " " " Stansbury & Co.

- 737 *Phlox speciosa*, var. *Woodshanic*  
     Williams  
 739 *Phacelia hispida*, north of Prescott  
 740   "   malle, E.L.S. n.sp " " "  
 741   "   *Rusbyi* " " "  
 742   "   *Tremontii*, Campai.  
 743   "   *Arizonaica* North of Prescott  
 744 *Eriogonum angustipolium*, Oak Creek  
     (I think this species is not distinct  
     from *E. glutinosum*)  
 745 *Eritrichium micranthum*, var. Prescott.  
 746 *Echinospermum pinnatum*, E.L.S. Casinio.  
     + *Mogollonense*, N.M.  
 748 *Eritrichium setosissimum* Williams &  
     Blasleff.  
 750   "   *barbigerum*, Casinio.  
 751   "   (specimen sent - herewith)  
     Ash Park.  
 752 *Lithospermum cobrense*, E.L.S. Williams  
 752½ *Convolvulus incanus*, Beaver Creek  
 754 *Solanum Xanti*, May, Oak Creek  
 755 *Physalis pendula*, May Casinio.  
 759 *Castilleja minor* Oak Creek  
 767 *Pedicularis Parryi*, Mt. Humphreys  
 772 *Pentstemon Palmeri*, a dwarf form  
     at Peach Springs.  
 773   "   *Rusbyi*, E.L.S. n.sp Banghart  
     Ranch, and Campai.  
 775   "   *virgatus* Blasleff.
- 780 *Verbena polystachya*, near Flagstaff.  
 781 *Aphyllon multiflorum* Casinio.  
 786 *Hedemora procumbens*, E.L.S. n.sp Flagstaff.  
 787   "   *thyrsoides*, Oak Creek  
 788   "   "   var *oblongipolia*  
     Campai, Co.
- 805- *Cladanthus suffruticosus*, Colorado River  
 806 *Eriogonum deflexum*, Hackberry  
 807   "   

diivatione

, Denison  
 808   "   *corymbosum*, Casinio.  
 809   "   *Rusbyi*, E.L.S. n.sp near Casinio  
 810   "   *virginicum* Lynx creek  
 811   "   *Palmeri*, Hackberry.  
 812   "   *ceratum* Flagstaff.  
 813½ "   *retandipolium*, Wujale, it. u.  
 816   "   *blavum* Casinio.  
~~816~~ 817 "   *inflatum* Peach Springs  
 818   "   *racemosum* Flagstaff.  
 821 *Euphorbia dictyosperma* Mt. Verde.  
 822   "   *strictosperma*  
 823   "   *Pendula* Everywhere  
 824   "   *setiloba*, Hackberry  
 827   "   *Zygophyllaceae* "  
 831 *Pinus flexilis* 3 Mt. Humphreys.  
 832   "   *aristata* 3 Mt. Humphreys.  
 833- *Agave Utahensis*, Peach Springs.  
 836 *Smilacina sessilifolia*, Williams ult.  
 842½ *gigantea* Spanningi, Rusby  
     Base of Mt. Humphreys.

# PLANTS OF NEW MEXICO AND ARIZONA.

The following is a partial list of my specimens. The Juncaceæ, Cyperaceæ and Gramineæ are still undetermined, and three boxes of other plants are yet to arrive. A supplement will be published later, giving the additional species, and naming those species marked doubtful in this list, which has been hastily prepared.

The price of specimens is \$8 per hundred, no selection being allowed beyond the selection of entire Orders. When any further selection is made, \$10 per hundred will be charged. When the full set is taken only \$5 per hundred will be charged. H. H. RUSBY, Franklin, N. J.

- |    |   |     |   |
|----|---|-----|---|
| 1  | Clematis ligusticifolia, Nutt. (Fruit.)           | 50  | Malvastrum leptophyllum, Gray.  |
| 2  | " Bigelovii, Torr.                                | 51  | " hastatum, Gray.   |
| 3  | Thalictrum Fendleri, Eng.                         | 52  | Anoda hastata, Cav.   |
| 4  | Anemone decapetala, L.                            | 53  | Linum Neo-Mexicanum, E. L. Greene.  |
| 5  | Delphinium azureum, Mx.?                          | 54  | " aristatum, Engelm.  |
| 6  | Aconitum Fischeri, Reich.                         | 55  | " n. sp.?   |
| 7  | Argemone hispida, Gray?                           | 56  | Tribulus grandiflorus, B. & H.  |
| 8  | Eschscholtzia Californiae, Cham., var.            | 57  | " maximus, L.   |
| 9  | Corydalis aurea, Willd., var. occidentalis, Gray. | 58  | Geranium Fremonti, Torr.  |
| 10 | Arabis Holboellii, Hornem.                        | 59  | " Richardsoni, Fisch. & Mey.  |
| 11 | " var. patula.                                    | 60  | Ptelea angustifolia, Beuth.   |
| 12 | Dryopteris runcinatum, Gray.                      | 61  | Pachystima Myrsinoides, Raf.  |
| 13 | Streptanthus carinatus, Wright.                   | 62  | Rhamnus sp. <i>Californicus</i> , var. <i>forbesii</i>                                      |
| 14 | Vesicularia Gordoni, Gray.                        | 63  | "   |
| 15 | " purpurea, Gray.                                 | 64  | Ceanothus Fendleri, Gray.   |
| 16 | " stenophylla, Gray.                              | 65  | " Greggii, Gray.  |
| 17 | Draba cuneifolia, Nutt.                           | 66  | Vitis Arizonica, Engelm.  |
| 18 | " streptocarpa, Gray.                             | 67  | Sapindus marginatus, Willd.   |
| 19 | Sisymbrium diffusum, Gray.                        | 68  | Negundo aceroides, Moench.  |
| 20 | " canescens, Nutt.                                | 69  | Acer grandidentatum, Nutt. (Fruit.)   |
| 21 | " sp.   | 70  | Rhus micropylla, Gray. (Fruit.)   |
| 22 | "   | 71  | " trilobata, Nutt., var.? <i>moniliformis</i> <i>var.</i> <i>tomentosa</i> <i>fructuosa</i> |
| 23 | Erysimum asperum, DC.                             | 72  | "   |
| 24 | Thelypodium integrifolium, Endl.                  | 73  | Crotalaria lupulina, Raf.   |
| 25 | " linearifolium, Watson.                          | 74  | Lupinus argenteus, Pursh.   |
| 26 | " Wrightii, Gray.                                 | 75  | " pusillus, Pursh?  |
| 27 | Lepidium intermedium, Gray. (Petaled form.)       | 76  | " Sitgreavesii, Watson.   |
| 28 | Thlaspi alpestre, L., var. <i>purpurea</i> .      | 77  | <i>Hosackia Wrightii</i> , Gray? ( <i>or a n. sp.</i> ) <i>viridis</i>                      |
| 29 | Polanisia uniglandulosa, DC.                      | 78  | Psoralea floribunda, Nutt.  |
| 30 | Viola Canadensis, L.                              | 79  | Dalea albiflora, Gray? (May be new.)  |
| 31 | Polygala puberula, Gray.                          | 80  | " alopecuroides, Willd.   |
| 32 | Monnieria Wrightii, Gray.                         | 81  | " formosa, Torr.  |
| 33 | Krameria secundiflora, DC.                        | 82  | " filiformis, Gray.   |
| 34 | Silene Greggii, Gray.                             | 83  | " Jamesii, T. & G.  |
| 35 | Lychnis Drummondii, Watson.                       | 84  | " polygonoides, Gray.   |
| 36 | Cerastium nutans, Raf., var.                      | 85  | " Wislizeni, Gray.  |
| 37 | Stellaria Jamesii, Torr.                          | 86  | Petalostemon exilis, Gray.  |
| 38 | Arenaria saxosa, Gray.                            | 87  | " tenuifolius, Gray.  |
| 39 | " var.?   | 88  | Robinia Neo-Mexicana, Gray.   |
| 40 | Drymaria sparguloides, Gray.                      | 89  | " (With hirsip fruit.)  |
| 41 | " teuella, Gray.                                  | 90  | Astragalus Arizonicus, Gray.  |
| 42 | " <i>canescens</i>                                | 91  | " Cobreensis, Gray.   |
| 43 | Talinum aurantiacum, Engelm.                      | 92  | " Missouriensis, Nutt.  |
| 44 | " confertiflorum, E. L. Greene.                   | 93  | " Nuttallianus, DC.   |
| 45 | Claytonia perfoliata, Donn.                       | 94  | " triflorus, Gray.  |
| 46 | Sidalcea malvaeflora, Gray.                       | 95  | Glycyrrhiza lepidota, Pursh.  |
| 47 | " n. sp.?   | 96  | Desmodium Neo-Mexicanum, Gray.  |
| 48 | Malvastrum coecineum, Gray, var.                  | 97  | " sp.? <i>Indicum</i> , <i>var.</i>   |
| 49 | " "   | 98  | Vicia exigua, Nutt.   |
|    |   | 99  | " leucophaea, E. L. Greene.   |
|    |   | 100 | " pulchella, HBK.   |

More a S. W. side  
in open soil

- 2
- ? 7 3
- 101 *Vicia Americana*, Muhl.  
 \*102 " " var. *linearis*, Watson.  
 103 *Lathyrus paluster*, L., var.  
 104 " " "  
 105 *Cologania longifolia*, Gray.  
 106 *Phaseolus macrospoides*, Gray.  
 107 " *retusus*, Benth.  
 108 " *Wrightii*, Gray.  
 109 *Sophora sericea*, Nutt.  
 110 *Hoffmannseggia Jamesii*, T. & G.  
 111 " *stricta*, Benth.  
 112 *Cassia bauhinioidea*, Gray.  
 113 *Prosopis juliflora*, DC. (Fruit.)  
 \*113a *Mimosa dysocarpa*, Benth.  
 114 " *pubescens*, Benth.  
 115 *Acacia constricta*, Benth.  
 116 " *filicina*, Willd.  
 117 " sp.?  
 \*118 *Calliandra conferta*, Benth.  
 119 *Prunus Andersoni*, Gray.  
 120 *Spiraea discolor*, Pursh.  
 121 " " var. *ariæfolia*, Watson.  
 122 *Rubus Neo-Mexicanus*, Gray. ~~edelius~~  
 123 " *strigosus*, Mx.  
 124 " *trivialis*, Mx.  
 125 *Cercocarpus parvifolius*, Nutt.  
 126 *Cowania Mexicana*, D. Don.  
 127 *Fallugia paradoxa*, Endl.  
 128 *Potentilla Thunbergi*, Gray.  
 \*129 *Amelanchier alnifolia*, Nutt. *Joosa latif.*, var.  
 130 *Fendlera rupicola*, Engelm.  
 131 *Ribes pinetorum*, E. L. Greene. (Lvs.)  
 132 *Sedum Wrightii*, Gray.  
 133 *Oenothera Hartwegi*, Benth.  
 134 " " var. *lavandulæfolia*,  
 135 " *pinnatifida*, Nutt. [Watson].  
 136 " *trichocalyx*, Nutt.  
 137 *Gaura suffulta*, Engelm.  
 138 *Mentzelia albicaulis*, Dougl.  
 \*139 " *aspera*, L.  
 140 " *Wrightii*, Gray.  
 141 *Megarrhiza Gilensis*, E. L. Greene.  
 142 *Sicyos*  
 142a *Echinocactus Wislizeni*, Engelm.  
 143 *Cereus Fendleri*, Engelm. (No fruit.)  
 144 " *pheniceus*, Engelm. (No fruit.)  
 145 *Opuntia arborescens*, Engelm.  
 146 " sp.? (Fruit.)  
 147 *Cymopterus montanus*, T. & G., var. *purpureascens*, Gray.  
 \*147a *Ligusticum scopolorum*, Gray, apparently.  
 148 *Paeonia nudicaule*, Watson.  
 149 *Loniceria dumosa*, Gray.  
 150 *Symporicarpus oreophilus*, Gray.  
 151 *Mitracerpium breviflorum*, Gray.  
 152 *Houstonia* n. sp.  
 153 " sp.?  
 154 *Galium Fendleri*?  
 155 " n. sp.?  
 156 *Valeriana edulis*, Nutt.  
 \*157 *Stevia serrata*, Cav.  
 158 *Carphochaeta Bigelowii*, Gray.  
 159 *Baccharis cœruleascens*, Gray.  
 \*160 " *ptarmachefolia*, DC., var.  
 \*161 *Aciphena acerosa*.  
 162 *Partenium incanum*, HBK.  
 163 *Zinnia grandiflora*, Nutt.  
 164 *Sanvitalia Aberti*, Gray.  
 165 *Baileya multiradiata*, Harv. & Gray.
- J
- 166 *Baileya pleniradiata*, Gray.  
 167 *Chrysopsis villosa*, Nutt., var.  
 168 "  
 169 *Galinsoga parviflora*, Cav.  
 \*171 *Verbesina eneclioides*, Benth. & Hook.  
 172 *Gymnosoma multiflora*, Benth. & Hook.  
 173 *Riddellia tagetina*, Nutt.  
 174 *Troximon aurantiacum*, Hook.  
 175 *Malacothrix Fendleri*, Gray.  
 \*176 *Helenium Hoopesii*, Gray, var.?  
 \*177 *Hieracium* n. sp.  
 178 " sp.?  
 179 *Hymenopappus flavescens*, Gray.  
 180 " sp.?  
 181 *Perezia num*, Gray.  
 182 " *Wrightii*, Gray.  
 183 *Layia glandulosa*, Hook. & Arn.  
 184 *Carminitia tenuiflora*, DC.  
 185 *Pectis filipes*, Gray.  
 186 " *angustifolia*, Torr.  
 187 *Gaillardia pulchella*, Foug.  
 188 " *pinnatifida*, Torr.  
 189 *Gnaphalium strictum*, Gray.  
 190 *Melampodium cinereum*, DC.  
 191 *Aster adscendens*, Lindl.  
 192 " *tanacetifolius*, HBK.  
 193 " *multillorus*, Ait.  
 194 " *canescens*, Pursh.  
 195 *Erigeron macranthus*, Nutt.  
 196 " *glaebellus*, Nutt.  
 197 " n. sp.?  
 198 " *divergens*, T. & G.  
 199 " *delphinifolius*, Willd.  
 200 " *flagellaris*, Gray.  
 201 *Bigelowia Douglasii*, Gray.  
 202 " *graveolens*, Gray.  
 203 *Trixis corymbosus*.  
 204 *Gutierrezia eriocarpa*, Gray?  
 \*205 " *Euthamiae*, T. & G.  
 206 *Grindelia* n. sp.  
 207 *Bahia absinthifolia*, Benth.  
 208 *Hymenatherum polychaetum*, Gray.  
 209 " *pentachaetum*, DC.  
 210 *Aphanostephus Arizonicus*, Gray.  
 211 *Palafoxia Hookeriana*, T. & G.  
 212 *Senecio aureus*, L., var.  
 213 " "  
 214 " *longilobus*, Benth.  
 215 " *Rusbyi*, E. L. Greene.  
 216 " n. sp.?  
 217 *Aplopappus Parryi*, Gray.  
 218 " *laricifolius*, Gray.  
 219 " *spinulosus*, DC.  
 220 *Cosmos bipinnatus*, Cav., var. *parviflorus*, Gray.  
 221 *Stephanomeria minor*, Nutt.  
 222 " *Thunbergi*, Gray.  
 223 *Hymenothrix Wrightii*, Gray.  
 224 *Cnicus Neo-Mexicanus*, Gray.  
 225 " *Parryi*, Gray.  
 226 " *undulatus*, Gray.  
 227 *Solidago Missouriensis*, Nutt.  
 \*228 " *Bigelowii*?  
 229 *Villanova chrysanthemoides*, Gray.  
 230 *Ambrosia psilostachya*, DC.  
 231 *Artemisia Ludoviciana*, Nutt., var.  
 232 " " [Mexicana], Gray.  
 233 " " var.  
 234 *Artemisia transversioides*, E. L. Greene.  
 235 *Kuhnia eupatorioides*, L.  
 236 *Briekellia oligantha*, Gray.  
 237 " *grandiflora*, Nutt.  
 238 " *Wrightii*, Gray.  
 239 " *floribunda*, Gray.  
 240 " sp.?  
 241 " sp.?  
 242 *Eupatorium Berlandieri*, DC.  
 243 *Berlandiera lyrata*, Benth. *Nuttiana*, var.  
 \*244 *Pyrhopappus Rothrockii*, Gray, var.  
 \*245 *Heterospermum tagetinum*, Gray.  
 246 *Actinella Richardsonii*, Nutt.  
 247 " *odorata*, Gray.  
 248 *Encelia frutescens*, Gray?  
 249 *Thelesperma gracilis*, Gray.  
 250 *Campanula rotundifolia*, L., var.  
 251 *Arctostaphylos pungens*, HBK.  
 252 *Primul Rusbyi*, E. L. Greene.  
 253 *Forestiera Neo-Mexicana*, Gray.  
 254 *Fraxinus pistaciaefolia*, Torr.  
 255 *Menodora scabra*, Gray.  
 256 *Amsonia Palmeri*, Gray.  
 257 " var. *molle*.  
 258 *Asclepias involucrata*, Engelm.  
 259 " *longioru*, Benth.  
 260 " *brachystephani*, Engelm.  
 261 *Philibertia cyananthoides*, Gray.  
 262 *Gentiana Amarella*, L., var.  
 263 " *Rusbyi*, E. L. Greene.  
 \*264 *Hallenia Rothrockii*, Gray.  
 265 *Collomia aggregata*, T. C. Porter.  
 266 " *longiflora*, Gr. (Sp. very poor)  
 267 " *Thunbergi*, Gray.  
 268 *Gilia aurea*, Nutt.  
 269 " *lloccosa*, Gray.  
 270 " *inconspicua*, Dongl.  
 271 " var. *parviflora*.  
 272 " *Nuttallii*, Gray, var.?  
 273 *Eriodictyon glutinosum*, Benth.  
 274 *Nama dichotomum*, Ruiz & Pav., var. *gustifolium*, Gray.  
 275 *Phacelia circinata*, Jacq.  
 276 " *crenulata*, Torr.  
 277 " *integrifolia*, Torr.  
 278 " *micrantha*, Torr.  
 279 " —, E. L. Greene.  
 280 *Coldenia hispidissima*, Gray.  
 281 *Echinospermum Redowskii*, Lehm., var. *cupulatum*, Gray.  
 282 " *ursinum*, E. L. Greene.  
 283 *Eritrichium Jamesii*, Torr.  
 284 " *leiocarpum*, Watson.  
 285 " *pterocaryum*, Torr.  
 286 *Heliotropium convolvulaceum*, Gray.  
 287 " *Curassavicum*, L.  
 288 *Lithospermum angustifolium*, Mx.  
 289 " *multiflorum*, Torr.  
 290 " *Cobreense*, E. L. Greene.  
 291 *Mertensia paniculata*, Don.  
 292 *Onosmodium Thurberi*, Gray.  
 293 *Convolvulus incanus*, Vahl.  
 294 *Cuscuta squamata*, Engelm.  
 \*295 " sp.?  
 296 *Evolvulus argenteus*, Pursh.  
 297 " *Arizonae*, Gray.  
 298 " *sericeus*, Swz.  
 299 *Ipomea costellata*, Torr.  
 300 " *Mexicanum*, Gray.
- 301 *Ipomoea muricata*, Cav.  
 302 *Chaemesaraea Coronopus*, Gray.  
 303 " *sordida*, Gray.  
 304 *Datura meteloides*, DC.  
 305 *Lycium barbinodum*, Miers. (Fruit.)  
 306 " *pallidum*, Miers.  
 307 *Margaranthus solanaeetus*, Schlecht.  
 308 *Nicotiana trigonophylla*, Dunal.  
 309 *Physalis viscosa*, L.  
 310 " sp.?  
 311 *Solanum elaeagnifolium*, Cav.  
 312 " *Jamesii*, Torr.  
 313 " *tuberosum*, L.  
 314 *Antirrhinum maurandoides*, Gray.  
 315 *Castilleja integrifolia*, Gray.  
 316 " *linariaefolia*, Benth.  
 317 " n. sp.?  
 318 *Conoebe intermedia*, Gray.  
 319 *Cordylanthus Wrightii*, Gray.  
 320 *Maurandia Wislizeni*, Engelm.  
 321 *Mimulus luteus*, L., var.  
 322 *Orthocarpus purpureo-albus*, Gray.  
 323 *Pedicularis Mogollonica*, E. L. Greene.  
 324 *Pentstemon acuminatus*, Dougl.  
 325 " *ambiguus*, Torr.  
 326 " *linarioides*, Gray.  
 327 " *punicus*, Gray.  
 328 " *secundiflorus*, Benth.  
 329 " *spectabilis*, Thunber.  
 330 *Serophularia California*, Cham.  
 331 *Aphyllon fasciculatum*, Gray.  
 332 *Conopholis Mexicana*, Gray.  
 333 *Chilopsis saligna*, Don.  
 334 *Anisacanthus Thunbergi*, Gray.  
 335 *Lippia nodiflora*, Mx.  
 336 *Verbena bracteosa*, Mx.  
 337 " *bipinnatifida*, Nutt.  
 338 *Dracocephalum parviflorum*, Nutt., var.?  
 339 "  
 340 *Hedonea Drummondii*, Benth.  
 340a " *dentata*, Torr.  
 341 *Monarda fistulosa*, L.  
 342 *Salvia ballotiflora*, Benth.  
 343 " *Henryi*, Gray.  
 344 " *lanceolata*, Willd.  
 345 " *subincisa*, Benth.  
 346 *Stachys coccinea*, Jacq.  
 \*347 *Tetraelea Coulteri*, Gray.  
 348 *Plantago Patagonica*, Jacq., var. *gnaphaloides*, Gray.  
 349 *Mirabilis multiflora*, Gray.  
 350 " *longiflora*, L.  
 351 *Boerhaavia spicata*, Chois.  
 \*352 " *purpurascens*, Gray.  
 353 *Oxybaphus nyctagineus*, Sweet.  
 354 " *coccineus*, Torr.  
 355 *Allionia incarnata*, L.  
 356 *Selinocarpus chenopodioides*, Gray.  
 357 " *diffusus*, Gray.  
 358 *Polygonum tenuie*, Mx.?  
 \*359 *Eriogonum Abertianum*, Torr.  
 360 " *annuum*, Nutt.  
 361 " *alatum*, Torr.  
 \*362 " *Wrightii*, Torr.  
 363 " *pharacieoides*, Torr.  
 \*363a " *microthecum*, Nutt., var. *efusum*, T. & G.  
 363b " *Wrightii*, Torr.  
 363c " *trichopodium*, Torr.
- I  
Name a S. North Amer.  
44

- † 363d *Eriogonum polycladon*, Benth.  
364 *Eurotia lanata*, Moq.  
364a *Spirostachys occidentalis*, Watson.  
× 365 *Teloxys cornuta*, Torr.  
366 *Gomphrena cæspitosa*, Torr.  
→ 367 *Urtica gracilenta*, E. L. Greene. *U. Braunii*  
368 *Celtis reticulata*, Torr. or *baccata*?  
369 *Morus parvifolia*.  
370 *Platanus* sp.? (Fruit.)  
371 *Salix longifolia*, Muhl.  
372 " *lasiolepis*, Benth.  
273 *Populus Fremontii*, var.(?) *Wislizeni*,  
374 *Tragia* sp. [Watson].  
375 *Croton corymbulosus*, Engelm.  
376 " *Texensis*, Muhl.  
377 *Aealypha Lindheimeri*, Muhl.  
378 *Euphorbia bilobata*, Engelm.  
379 " *exstipulata*, Engelm.  
380 " *albomarginata*, T. & G.  
381 " *campestris*, Cham. & Schlecht.  
382 " var.?  
383 *Alnus oblongifolia*, Torr.  
384 *Quercus undulata*, Torr.  
385 " *hypoleuca*, Engelm. (No fruit.)  
386 " *grisea*, Liebm.  
387 " *Emoryi*, Torr. (Lvs.)  
388 " *pungens*, Liebm.  
389 *Phoradendron flavescens*, Nutt., var.  
390 " *juniperinum*, Engelm.  
391 *Arcythobium robustum*, Eng. (Lvs.)  
392 *Comandra pallida*, A. DC. (Fruit.)  
393 *Pinus strobiiformis*. (Fruit.)  
394 *Picea Sitchensis*, Carr. (Fruit.)  
395 *Pseudotsuga Douglassii*, Carr. (Fruit.)  
396 " var.? (Fruit.)  
397 *Cupressus Arizonicus*, E. L. Greene.  
398 *Ephedra antisiphilitica*, C. A. Meyer.
- 399 *Habenaria sparsiflora*, Watson.  
400 *Epipactis gigantea*, Dougl.  
401 *Iris Missouriensis*, Nutt. (Fruit.)  
402 *Sisyrinchium Arizonicum*, Rothr. (Fr.)  
403 *Hesperantha Torreyi*, Watson.  
404 *Allium cernuum*, Roth.  
405 " *Bigelovii*, Watson.  
406 *Zygadenus porrifolius*, E. L. Greene.  
407 *Brodiaea pauciflora*, Gray.  
408 *Calochortus Gunnisonii*, Watson.  
409 *Yucca baccata*, Torr.  
410 " *angustifolia*, Pursh.  
411 *Agave Parryi*, Engelm. (Only fls.)  
412 *Nolina erumpens*, Watson.  
413 *Dasyllirion Wheeleri*, Watson.  
414 *Tradescantia tuberosa*, E. L. Greene.  
415 *Commelyna linearis*, Benth.  
416 *Equisetum laevigatum*, A. Braun.
- 
- A *GymnoGramme hispida*, Mett.  
B *Notholæna sinuata*, Kaulf.  
C " *Hookeri*, D. C. Eaton.  
D " *dealbata*, Kunze.  
E " *Grayi*, Davenport.  
F *Cheilanthes Wrightii*, Hook.  
G " *lanuginosa*, Nutt.  
H " *Eatonii*, Baker.  
I " *Fendleri*, Hook.  
J " *Lindheimeri*, Hook.  
K *Pellaea atropurpurea*, Link.  
L " *Wrightiana*, Hook.  
M " " (the *P. mucronata* form.)  
N " *andrewiedæfolia*, Fee, var. *pubescens*, Baker.  
O *Woodsia Mexicana*, Fee, var.  
P " " "  
Q *Cystopteris fragilis*, Bernh.

Benne or Beni seed. *Sesamum Indicum* order Pedaliaceae.  
Castor-oil bean. *Ricinus Communis*. A native of India.

Camphor tree. *Cinnamomum camphora* " " ? Order Lauraceae  
Lognat.

*Phoenix sylvestris* found throughout India (the wild date-palm) is probably the tree  
from wh. the date-palm (*P. dactylifera*) was originally derived.

Paddlewood, a tree of Guiana, *Aspidosperma excelsum* of the Apocynaceae.  
also called wheel-tree from the form of a section of the trunk.

Sea-bean - Leguminous climbing plant, *Ertada scandens*, growing  
in the tropics of both hemispheres, and remarkable for the size of its  
pods. Beans two inches across and half an inch thick.

Benne Seed,  
(*Sesamum orientale*)  
of the West Indies  
St. Helena,  
So. Carolina

Hannah Ruth  
Alma  
Annie  
Kamala  
~~Lorraine~~  
Mr. Dorlette

5-2

*Krynička microstachys*  
(white forget-me-not)

[Native]

61 - *Erechtites* p. 269.

Cream-colored flowers.

81 - *Pyrrhopappus* p. 280.

Yellow flowers - (Stiff seeds.)

83. *Lactuca*

New Boston, N. H.

*Machaeris patula*  
Newport Cal. <sup>Dixon</sup>

*Peltia monilifera*  
*Bulla Gouldiana*  
(formerly *Nobilosa*)

---

- 1 *Magnolia grandiflora* (103)
- 2 *Cordyline - Jobi*  
(*"Jobi Tears"*) (20)
- 3 *Cinnamomum camphora*  
(Camphor Tree) (104)
- 4 *Eriobotrya Japonica*  
(Loquat or Japanese  
Plum) (105)
- 5-7 Fan Palm <sup>var.</sup> (106)
- 6 Date Palm <sup>var.</sup> (107)
- 

I do not know the palms  
and there are a great  
many here cultivated as  
shade trees. I have arrayed  
the dead machaera - I put  
it in to show the size they  
attain. never get them alive.

1. *Chlorogalum pomeridianum* Benth  
402
2. *Calochortus splendens*. Dougl  
"Mariposa Lily"
3. Onion Lily (Greenhouse)
4. *Schindleria Elliottii* (Greenhouse)
5. *Brodiaea capitata* Benth
6. *Bromelia aurea* Willd.  
394 "Golden Stars"
7. *Asparagus sprengelii* (Greenhouse)
8. " *plumosus* "
9. *Yucca whipplei* Dorr (native)
10. <sup>4</sup> " *aloijolia* (Garden)
11. *Gladivulus Lemonii*
12. *Amaryllis Johnsonii* } Gordon
13. <sup>403</sup> *Lilium candidum*
14. *Tritillaria biflora* Lindl (native)  
397 "Chocolate Lily".
15. *Asparagus medeoloides* (Garden)  
Smilax
16. *Kewkeria hyacintha* Gordon &  
396 Native
17. A Daisy that grows in my neighbor's  
400 garden and I call "Lydia's daisy"  
till I get a better name. The whole  
rays are long and the centre is blue

the foliage only - not very attractive  
in this land of beautiful plants.

- 18<sup>4<sup>th</sup></sup> *Atriplex californica* A. Nels. Beach  
19<sup>4<sup>th</sup></sup> " *fractozia* " ?  
20<sup>3<sup>rd</sup></sup> *Convolvulus occidentalis* (native)  
21 *Plagiobothrys canescens* Benth.  
892 One of our many wild white  
forget-me-nots  
22<sup>391</sup> *Stephanomeria virginica* Benth.  
(Compositae)  
23<sup>392</sup> *Rosa californica* Cham  
24 *Romneya Coulterii*. (Native)  
White Poppy  
25 *SIpomoea hederacea* (Garden)  
"Morningglories"  
26 *Eucelia californica* (Native)  
(Composite)  
27<sup>390</sup> *Streptanthus polygaloides* Gr  
(Cruciferaceae)

- 1 <sup>43</sup> *Cullinaceæ Daisy*. white and  
 blue. Note the seeds plumed  
 at both ends. Did you ever  
 see that in a seed before?

2 <sup>44</sup> *Mesquinoë Californiae* T & G.  
 Bot Elder

3 <sup>45</sup> *Mesquit Bean*. From India <sup>60.</sup>  
 Cool  
 Have no way of analysing it  
 but shall send for some  
 more of it. pl.

4 <sup>46</sup> *Quercus agrifolia* Nee. "Lame  
 Oak". Sempervirens I think - Burn.

5 <sup>47</sup> *Cnicus lanceolatæm* L.  
 Bull Thistle.

6 <sup>48</sup> *Familiæ spinosæ* L.

7 <sup>49</sup> Cedar of Goa. (Shrub tree)

8 <sup>49</sup> *Foæcia alba*

9 <sup>49</sup> *Sonchus asper*

10 <sup>49</sup> *Echinodorus rotundatus*. Engelm  
 Water Plantain

11 <sup>49</sup> *Convolvulus occidentalis* Gr

12 <sup>49</sup> *Crepis vires*

13 <sup>49</sup> *Rhus ovalæ*. (Lemonade Berry)

14 <sup>49</sup> *Pistyrax Californiae*. Joss.

15 <sup>49</sup> *itzia* sp? (Garden - spotted species)

16 <sup>49</sup> *Diospyros Kaki* Linn.  
 Japanese Persimmon.

17 <sup>49</sup> *Maurandia sempervirens*  
 Garden

18 <sup>49</sup> *Cornus Nuttallii* And.  
 Dogwood.

March 22. 1907

1. <sup>293</sup> *Anagallis arvensis* Linn  
Orange. (Primrose)
2. <sup>294</sup> *Eschscholtzia California* Cham  
Orange.
3. *Scirpus robustus* Pursh.
- 295 *Alico* Com. (Salt-marsh Bulrush)
- 296 <sup>297</sup> *Chrysopsis argyracantha* var *rudis*. Gray
5. <sup>298</sup> *Acacia decurrens*. Sweet Mu. (Black Acacia)
6. <sup>299</sup> *Polygonum lapathifolium* L.  
Commun Knobwood or Smartweed.
7. *Datisca glomerata* B & H. Datiscaceae
- (8. <sup>300</sup> *Solidago Guadalupensis* Gray.)
9. <sup>301</sup> *curvata* perennis. Gr  
(Gouard - Mock Orange)
10. *Salix lasiolepis* G. C.  
301 (Arroyo Willow)
- (11. <sup>302</sup> *Solidago occidentalis* Nutt.)
- (12. *Asclepias speciosa* Cav.)  
El Toro Canon.
13. *Erodium moschatum* L'Her  
302 (Musk Thistle)
14. *Clematis ligiartha*. Nutt.
- 303 *Laguna* Canon. Santiago Canon
15. <sup>304</sup> *Galium angustifolium*. Nutt  
Santiago Canon
16. *Brixiella californica* J. G.  
305 Santiago Canon.
17. *Pelargonium crenulatum*
- 306 (Lady Washington)
18. *Rhus diversiloba*
- 307 *Pois*. San Joaquin Canon. (over)

1930<sup>d</sup> *Chenopodium californicum* var.  
Soap Plant

- 203<sup>a</sup> *Macroseris macrochorda*. Gray  
213<sup>b</sup> *Senecio douglasii* D. B.  
221<sup>c</sup> *Bæeria chrysostoma* F. M. (Smoothine)  
233<sup>d</sup> *Franseria Hookeriana*  
243<sup>e</sup> *Cucita virosa* L. (Pale Hemlock)  
253<sup>f</sup> *Cercocarpus ledifolius* Nutt.  
(Mountain C. - gray) Santiago Co.  
263<sup>g</sup> *Cnicus occid.* (Red Thistle)  
(27 *Comma* sp? (Large yellow-spotted))  
28 *Pentstemon cordifolius* 316  
29 *Aster occidentalis* Nutt 317  
30 *Adenostoma fasciculatum* H & A 318  
31 *Jasminum officinale*  
(White Jasminine). Gordon 319  
32 *Drotinior glaucum* 320  
Silverado Canon.  
33 *Chenopodium anthelminticum* 321  
(Wormseed)  
34 *Pluchea camphorata* DC 322  
Salt-Marsh Fleabane  
(35 *Centauraea melitensis* L  
Star Thistle (Sent last year))  
36 *Zygotea hederacea*  
(Blue Moon Fl. ex. Gordon 323  
37 *Clematis ligusticifolia*. Laguna Cen.  
38 *Heterotheca grandiflora* Nutt. 324  
39 *Verbena canescens* (Purple Verbena) Gordon 325  
40 *Helianthus annuus*. Wild Sunflower 326  
Some name as just garden species &  
some as Russian sunflowers. but the seeds

- 41 *Jasminia jasminoides* Garden 327  
42 Flowering Bean. (I do not know the name  
but the plant is well worth a place  
in the garden. and I mean to plant it. 328
- 43 *Citrullus vulgaris* var *citrinus*. 329  
(Citrone) Grows wild - immense  
oblong, pale green, looking like  
watermelons. Probably an escape  
they are growing along the R.R. track.  
the varietal name is my own, for  
they are citrini.
- 44 *Medicago sativa*. L. (Alfalfa.) 330  
45- *Lathyrus latifolius* (Perennial)  
(Sweet Pea) 331
- 46 *Capricum annuum*. Linn (Chile Peppers) 332
- 47 *Asparagus Sprengelii* (Greenhouse 332
- 48 *Xanthium canadense* var *echinatum* 333 333
- 49 *Acacia* sp: This is a shrub. I am  
not up to acacias, but I hope to some 334  
do find a way to know their specific 334  
names so we have many here. trees  
& shrubs, in fact.
- 50 *Begonia Engelmanni*. (Garden) 335
- 51 *Calochortus splendens* Dengl. 336  
(Mariposa Lily) Broke Beach.
- 52 *Rhynchia microstachys*. Greene  
*Laguna Conon* (white forget-me-not) 337
- 53 *Atriplex cordata*. Jepson 338
- 54 *Punica granatum*. (Pomegranate) Tull)
- 55- *Heteromeles arbutifolia*. (California Holly) Renn.)
- 56 *Amaranthus chlorostachys* 339 (over) 339

340

57 Agave americana. (Century Plant)

58 Psidium cattleiana. (Guava) 341

Among these are quite a number where there are very few seeds. These I have made a note of, and will try to get more this summer. Meanwhile they will "hold down the name" as Mrs. Burzak says.

19<sup>43</sup><sup>v</sup> *Baccharis viminea* D. C.  
Walter Moley. (a willow like  
shrub)

20 *Bæeria chrysostoma*.  
Smooth

21 *Zierelium vulgare*.  
Fennel. (wild here, probably  
escaped)

22 <sup>44</sup><sup>v</sup> *Hemizonia Hermannii*  
Dwarfed (one of many)

- 80 Red camp  
Spiraea ciliata <sup>and 3</sup> 2.8  
Stems & leaves  
downy hairy  
and sparsely  

---

Pink flowers, fuzzy seeds  
277 " Fuzzy seeds  
Kochia tenuis 278  
panicles  
white flowers  
green tops of stems  
fluffy white down <sup>white hair</sup>  
100% fine, 279 yellow flowers  
acacia like flowers with

Nov. 10, 1965.

M. G. Duglass Murray

- 11 *Luffa cylindrica* Roen. 182  
"Dishrag" (Garden)
- 12 *Zaegeria erecta*. Marigold (Garden)
- 3 *Plantago lanceolata* Linn. (Native) 182
- 4 *Malva parviflora*. Linn. (Native) 183
- 5<sup>+</sup> *Sonchus oleraceus*. Linn. (Native) 184
- 6<sup>+</sup> Australian Pea (Garden) 185
- 7<sup>+</sup> *Izomeria arborea* Nutt. (Native) 186
- 8<sup>+</sup> *Geranium sanguineum* (Garden)
- 9<sup>+</sup> "Gillyflowers" (Garden) 187
- 10<sup>+</sup> *Scabiosa* (Garden) 189
- 11 Spotted agave (Garden) 190
- 12<sup>+</sup> Persimmon
- 13 *Brassica campestris* L. (Native)  
Wild Turnip. { Looks exactly like mustard  
but differs in leaves, in seeds  
and in seed capsules 191
- 14 *Brassica nigra* Boiss. (Native  
mustard) 192
- 15<sup>+</sup> *Cupressus macrocarpa* 193  
Monterey Cypress
- 16 *Canna* sp? (small red blossom)
- 17 *Raphanus sativa* L. (Native)  
Wild Radish 194
- 18 Onion Lily (Greenhouse) 195
- 19 *Foeniculum vulgare*. Adams. 196  
(Native)
- 20<sup>+</sup> *Layia platyglossa* Gray. "Zigs Zags" (Native) 197
- 21<sup>+</sup> *Rhus integrifolia*. B. & H. (Native) 198  
"Lemonade Berry" 198
- 22 *Picea communis* (Red) (Native)
- 23<sup>+</sup> " " (Green) (Native) 199
- 24<sup>+</sup> Sancer Peach 200
- 25 "Horse Beans"

26 April 202

- 27 *Lavatera asurgentifolia* f. <sup>ferox</sup> Tull. 213  
Widely cult.-probably introduced
- 28 *Mesembryanthemum crystallinum*  
Native. "Ice Plant" 204
- 30 29 *Datura metel*. (Native) We have  
+ five species, the seeds of which are  
alike. There are here besides metel,  
Stramonium and discolor.  
Another year I shall take pains to  
separate them, and will send  
them to you as if you wish it. 235
- 30 *Amaryllis Johnsonii* (Red Lily Gordon) 15
- 31 *Lagestroemia Indica*. (Crape Myrtle.) 15
- 32 *Olea maculata*. (Lacewood in Greenhouse)
- 33 *Erodium cicutarium*. L. (Native) 207
- 34 *Viburnum tinus*. (Laurestinus) 20
- 35 *Ficus elastica*. (Rubber Tree.) 1
- 36 *Melia Azedarach*. (Mimosa Tree) 212
- 37 *Bidens pilosa* = *frondosa* Linn (Native)
- 38 *Nicotiana glauca*. (Tree Tobacco) (Native)
- 39 *Erigeron canadensis*. 214 (Native) 13
- 40 *Phaseolus* var?
- 41 *Auricaria Bidwillii*. 215
- 42 *Medicago densiflora*. "Bar Clovers"  
Native. I shelled out enough of these  
for a while but they seem to be mislaid.  
I will send you more if I can find any -  
it is late for them.
- 43 *Richardia speciosa*; (Colla Lily) 217  
A poor col., will try and find some better
- 44 *Auricaria Bidwillii*. There are seeds  
inside the scales. 15
- 45 *Pinus Gouletii*. #
- 46 *Opuntia prolifera*. # 237 #
- 47 *Centaurea melitensis*. (Star Thistle) Native
- 48 *Calochortus catalinae*. (Pussy Flower) 218

- 49 *Yucca whipplei*. Zott. (Native) - 19  
50 *Opuntia engelmannii*. Prickly Pear  
D (Native)  
51 *Bigelovia venula*. Gray. (Native) 221  
52 *Chaenactis glabriscola*. (Native) 222  
53 *Encelia californica*. (Native) 223  
54 *Verbascum densitatē*. (native). Found <sup>224</sup>  
by me, not before collected in the U.S.  
55 *Melilotis parviflora*. (Yellow sweet-  
clover. Native)  
56 *Asparagus nudoloides*. (8 miles)  
57 *Romneya Coulierii*. (Poppy. Native)  
58 *Dianthus pusillus*. Michx. <sup>-7</sup>  
Rattleback. weed. (native)  
59 *Asparagus plumosus*. Greenhouse form <sup>227</sup>  
60 *Lathyrus verticillatus*. (Wild Sweet Pea) - 3  
61 *Crocus californicus*. (Native) - 251  
62 *Eriogonum actigerum*. (Native)  
turkey mullein. <sup>32</sup>  
63 *Fragaria californica* (wild strawberry) <sup>233</sup>  
64 *Asclepias eriocarpa*. (milkweed)  
65 *Amaranthus albus*. (tumble weed)  
42 *Medicago demissilatata*. (Bar Clovers) - 1  
66 *Brodiaea capitata*. 236 236

4

18, 18, 9.

1

Gutta Percha Singapore  
 Sea weed from Calif. 1 species  
 Spines of Sea urchin 5. ( $3^2$  or  $3^3$ )  
 Butterflies Trochis & Idaea  
 Sand Dollars  $4 \frac{1}{2}$  inches? 2  
 { Echinorachinus parma 2 or 5?  
 Sand Dollars 3  
 Melitaea leucodiminae 3 Texas  
 Sea Biscuit small 1  
 Gorgonie (Yellow) 1  
 April 4, 1899. & Mrs. E. D. Ramsay  
 Skate's Eggs 2 No. Weymouth  
 Silk-worm cocoon  
 9-fingered Star 1  
 Medusa 1  
 Sea-horse 1  
 Flounder 1 Young Skate <sup>No. Weymouth</sup>  
 Sea worms 2 - different  
 Bubble Glass 2 " "  
 Red Star  
 Small Glass 3 All different

Star Fish 1 Florida Mr. T. Johnson  
" " " "  
Tridemis 2 " "  
m. b. t. dor. : " " "  
true-shield 1 E. Wilson Mass Marshall.  
Doris 17.

Lester Jones 12 Blanche Davis  
Aug. 27.  
Price of Petrified Wood \$11.00  
Nov. 20.

Oct. 28. Sch. Brilliant  
East of San. Achin Coral-Bahamas

71  
Nov. 20. Ms. C. 2, f. 11a.  
Low Fish Lge., 1 ft. Water 10-12  
feet deep. Shallow 1-2 inches  
bottom. 10 miles N. of Martinez, 1860  
P. P. 10 miles N. of Martinez, 1860

Dec. 13. Miss Storck  
3 pieces Green Jasper.

Nov. 20. Mrs. C. A. King cont'd  
Chinese Knot 3  
Wire Oak woods o Yape Valley.  
Sea-weed 2 Monterey Bay  
Green mussels 2 " "  
Fishes with spines small 3 "  
String - 1 "  
Vermicide. "  
Fin Sitta whale 1 "  
Seaweed & feather moss "  
1898

Feb. 25. Wheeler  
Sea-bean Yellow 1  
" Red (long) 1  
" Gray 1  
" Black 1  
" Black & white Dianthus 2  
Barter Beans 1  
" like Barter but small 2

Apr. 7 3 Red & Black Sea beans  
Nov. 7 Bahama Sea Beads

July - Piece plant among  
father's strings

Nov. Greenleaf - small <sup>large opening</sup> irregular  
" Mrs. Hale. Starfish.

Dec. 15 Mrs. Mc Cormick 3 stones.  
3 pieces Oxide & Carbonate Gypsum  
Green Coarse Granular

Mar. 14, 1899. Mrs. E. D. Ramsay  
Green Beetles 4 Blazing  
Clay strata from Gasa lead in  
glass tube.

Gorgonias (reddish)  
Sawfish Saw (small)  
Tamarind pods. L. V. Jones  
Pressed Flowers.  
Sand from Sahara.  
Jaw of Parrot fish  
" " ?  
Worm tubes.

1 small piece black jacks  
with dolomite - (Broken) Aurora  
Spencer.

Jack in mass - Spencer  
Lead (Spencer) comes cut off.

From Wagner mine -  
Marcasite - fine pieces  
Lead - Largest piece H.D. \*

One tiny lead crystal with mar-  
casite crystals. Hard

1 Hwy lead crystal &  
2 fine groups <sup>from</sup> ~~Prospect~~  
Blanket Vein mine & Hard

gave me  
Lignite seed - (Rattan?) &  
All from Missouri

Mar. 17. 1903 Mrs. E. D. Ramsey  
Large Starfish - West Indies?  
Some Greenish coral (?) & oyster  
shells (Coral?)

Sea urchin very small 1 1/2  
Sand Dollar tiny 1 1/2

Mr. Whipple  
May 1899. Flat light brown beans 3 W. I.  
August 1899. Tiny stars <sup>Purple, white, yellow, pink, etc.</sup> Wintuck Mass. 10

D.C. 1. W. I. is Phlogopite-  
Marcasite (crystalline) 5  
Apatite (crystalline) 1

June 1899. Mrs. E. D. Ramsey  
Mollusca 3 dead  
G. C. Lindström gave me 5 Spencer

July 1900. Sea Urchins alive 5th  
5 to 12. Stars (Quite a number) tiny me

Lichens

July 13 to 30. 1900 S. Orleans.  
Worm tubes? or coral 3 & 3 sp. 3  
Sponges - one? or more sp.? 1  
Sand dollars alive many dead 11

6 East Orleans Mass  
 July 1901 Urchins dead  
 several very small  
 Stars thrown from tiny one  
 good large live one.  
 Crabs bright red 10  
 Crab crimson red 1  
 and large claws.  
 Claw of another crab? (Bunn)

Oct. <sup>1901</sup> Mrs. Bradshaw  
 Sponge & species have kept 3 sp.

Coral - two species  
 Jan. 1901 Urchin Newport Bay Cal. 4  
 M.J. 1901 " Arch Beach 2  
 Sand dollars Newport Cal. 6

June 1901. Mrs. H. B. Starn  
 Purple encrusting egg cases clump 1  
 Large Barnacle 1

July 1901 Horse shoe crabs -

Sept. 1901. 2 Sea urchins large with spines  
 E. Orleans. H. L. Johnson  
 Oct. 1901 - arrowhead - Mrs. Whitney carriage -  
 June 16, 1902 Melitacea Dr. Min (dead) 10  
P. Carolina Mrs. E. D. Ramsay  
 " ~~Sharks' teeth fossil?~~  
 Mrs. E. D. Ramsay about 50

Oct. 1901. Fossil Shell best Mrs. Whitney  
 Dec. " " carriage largest Harold  
 " " " carriage medium Spence.  
 Oct 1901 - Large white Arrow head <sup>eggshell</sup> Mrs. Whitney

1901 - 3 pieces pod of cocoa Miss Brad  
 Some cocoa and  
 3 ivory nut.

Left to Jan 1902 From the Phoenix mine.  
 Dark small crystals - Large pieces <sup>1901</sup> H. L. W.  
 " larger " - small pieces  
 From Phoenix Min. Prospect, Mo  
 3 pieces silicate from  
 Prospect <sup>1901</sup> 2. yard garden  
 one picked up;  
 Calcite 1 large <sup>1901</sup> 3 small pieces  
 Aurora Mo - Spence. One

June 1913. These fruits from Texas  
from Mrs. J. G. Bennett (Engen)  
(American shells and broken arrowheads)

(9)

Jan. 28, 1903.

Litchi Nuts -

Chinese Knot Seeds (2 kinds)  
one each.

" fruit. 1

" food 3 kinds.

---

Chinese Tea in bundles. M. E. L.

Sapodilla seed S. Am. M. G. D.

Pulse Lyria "

Ground Wheat "

Lentiles "

---

June 1903 Chinese Sacred Candy! M. E. L.

" Nut similar to litchi! "

---

Spodumene Sterling Mass.

June, 1903.

---

Pescadero Stones M. G. Day  
Pescadero, Calif.

10 March. 14, 1906.

*Histaria consequana* Benth. Chinese Histaria.

*Gleditschia triacanthos* L.

Three-thorned Acacia, or Honey Locust.

*Catalpa bignonioides* Walt.

Catalpa. Indian Bean.

*Aristolochia* Siph., L'Her.

Pipe-Vine. Dutchman's Pipe.

Bog. 14 from specimen from W. S. Hin Sept. 1907.

Piece of glass (iridescent) from

Spanish galleon sunk in Caribbean Sea  
about a hundred years ago. The  
glass was brought up from the wreck  
after it had been under water forty  
years, Mr. Thos. Freeman who a boy, re-  
tained it from the vessel that went to ex-  
plore the wreck hoping to find treasure and  
which was, in turn, wrecked off Manaus  
Brazil on the return trip. July, 1907.

Sand from Block Island M. G. D.

3 agates from Pugt Ld. M. G. Day, Aug. 1907.

2 Sharks(?) eggs and 1 Skates Egg (Glims  
July 1907)

Dec. 1907. M. F. B.

Lemna - about 15 sp.

Lorisia lanceolata Bull Thistle.

Euphorbia splendens. Crown of Thorns.

White Jasmin Pods

Megarrhiza marah. Skeleton of the  
Guilford Bar.

Lichens from Big Trees

Bracts from Bamboo - in garden.  
(Feather Moss - gift to Mrs. Ruggles)

Linen Moss

Starfish. Larger than any I had.

Mussel - (*Mytilus Ed.*?)

Corolla Bohem.

June, 1911. Brown scallop, with  
a red scar, from J. E. C. One of the  
Norway beans.

Tiny piece here - Harold.  
Miami Blanket Dye Mfg Co.

---

Phenix - Jack  
Silicate &c W.S.H.

(Balarie) Fine lead (several pieces)  
& good mines situated <sup>Scattered</sup> largest  
Vagner? Marcassite + Lead  
Carterville or Well City

Atlas -

Flora species Calcite  
' large pieces "  
(Dolomite + Jack)

Thickets, trees, ferns,

Yerba Buena,

Grasses,

Wild flowers,

Many species of

Barren Grounds

Grasslands, etc.

Hillsides,

savannas,

etc., etc.

Amur (Cat-tail), common

also (Cattail),

Cattails, etc., etc.

Mock Orange - good and

very nice.

Salvador - Bahia  
Almada - Rio de Janeiro  
Sulphur Dragon  
Black-tailed Glider V. L.  
Long-tail Glider V. L.  
Lacewing Flycatcher  
Puffbird  
Toucan  
Tropic bird  
Dove

notable.

Dr. Meltt Products of Franklin  
Green Co. N. J.

Lechelle

Pip. St. Minn.

Noraunite Arkansas

Saltpeter Crystal.

Mefia Lava Crystal.

Blue & Red Cor. So. 4

Lava

Geoperites Yellowish Pk. Wmld.

Variegated Marble Plymst. U.S.

Prehnite 3 Somerville

Garnet 5 Dedham Mass.

" Haddam N. Y.

" Readings Penn

Pseudomorphs G - Specm

Limestone Barlow Mass

Wine Spec " "

Limestone Boilston "

" Canandaule Pa

Orange 2

Ant. Anthelite Burlington Ct

Actinolite Cavendish Vt

Amphibole Franklin R. I.

Hornblende Boronite Mass.

Anthophyllite Gorham N.H.

Black Quartz Dutch Flat Col  
or Col  
Pressed Quartz Wilmet N. H.  
Milky " "  
Rose " "  
" Pettle Smoky " "  
Smoky " Wilmet "  
Crysln " "  
Pink 2. McKeanage

Quartz Rock N. Adams.  
Granulated 2. Wilmet  
Milky 2. Wilmet  
Rose " "  
Pressed " "  
Smoky " "  
Black Dutch Flat Col  
spec from Park Lake River  
Flint Petrel Mass.

Carnelian Pebbles 2 H. S. 3 Girdles  
" " 12 Miss. R. Part of G. Alden Iowa  
Carnelian Polished " " Kerkrake Iowa.  
Egatis 3. Rocky Mts W.M. Grade " "  
Agate " "  
Amethyst Lake Superior 2 Chalcedony G. " "  
" Nova S. " "  
" Amst M.

2) Pumice  
2 Quartz Crystals

" "  
" " Gorham N. H.  
" Hot Spring Arks,  
Sandy 2. Crystals Mr. M.  
Part of Crystal Bridge Mts  
2. Crystals Herkimer Co. N.Y.  
" Texas  
Garnet Sand Marble Head  
Iron Sand Boulders

Abrasives S. L. D. V.  
" Staten Id. N. Y.  
" Italy  
Mineral Wool Colorado  
or Asbestos? Cent Ar.  
or Pumice?  
" Mr. R. Wall asbestos Smithfield Pa.

Pumice? Central Ar.

5. Magnetite Mann  
Hematite Pierpont N. J.  
" Eg.  
Whitcom H. Coalbrook



Fluorid Steatite Rose Mass.

Steatite " "  
Talc Lincoln R. I.  
Talc? "

Talc Rose Miss  
Span St. Lawrence Co N. Y.  
Silvercads White & M. L.  
Carbonate crystals 2 Water  
Ibriodin Yellow Stone P.R.  
Epidote crystals Sugar Hill  
2 N. H.

Copper?

Diamond Drill Cove. Meek  
Lay Head Clay Aunt M.  
Toad-Stone Gengelton Miss.  
Scapolite? Roxbury Mass  
" ? with Apatite? "

Anorthos Earth Colorado  
Green Feldspar Rockford Ill.  
Biotite with Lepidolite  
Biotite  
Ophi-calcite - Lehelvista

Steatite W. Greenland

" Plymouth Vt.  
Mica Muscovite Wilmett Ill

Marble White N. Adams  
Mica (Plumons) Wilmett  
Epidote? Lime Vt.  
Black Mica (Biotite) R. I. S.  
Dendrite on Limestone Smithfield  
Jasper. Saugus. Mass  
" Berlin N. H. 5

Diatomaceous Earth Richmond  
" Plymouth

Graphite  
Breccia

Dendrite on Argillite-2

" Leptigrite Plymouth Ct.  
Seneca Sandstone Danville  
Md.  
E. L. R.